



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 1, 1993

MEMORANDUM

SUBJECT: Transmittal of Two Draft Study Plans for Review:
- Eutrophication Study Plan
- Model Prediction Verification Study Plan

TO: Janet Hashimoto
Chief, Marine Protection Section (W-7-1)
Terry Oda *SEA F.T.O.*
Chief, Permits Issuance Section (W-5-1)

FROM: Pat Young *Pat Young*
American Samoa Program Manager (E-4)

Attached please find copies of the draft study plans for two studies required by the American Samoa tuna canneries' NPDES permits: a eutrophication study plan, and a model prediction verification study plan. The eutrophication plan includes a request for an extension of six months so that it can be done concurrently with the model verification study, which is scheduled for completion by May 1, 1993. We foresee no problem with granting this extension.

We would appreciate your staff's review of these studies and submission of any comments to me by September 24, 1993. Should the reviewer need to discuss the technical aspects of the proposal, he/she should feel free to contact Steve Costa of CH2MHill at (510) 251-2426-2251. Please call me at (415) 744-1594 if you have any questions.

Thanks again for your assistance.

Enclosure (2)

cc: Mike Lee (E-4)



ENTERED: 8/31/93
Rec'd 8/31/93
Copy to Janet H.,
Terry Oda

27 August 1993

PDX30702.EU.SP

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Dear Pat:

Subject: Joint Cannery Outfall **Eutrophication Study Plan**

Attached is a draft study plan for the eutrophication study required by the NPDES permits for the Joint Cannery Outfall in Pago Pago Harbor, American Samoa. This study plan is for review by USEPA and ASEPA and is intended to comply with Part J of NPDES Permit Numbers AS0000019 and AS0000027. The study plan includes a request for an extension of six months so that the model verification study and the eutrophication study can be done concurrently. The schedule section of the study plan contains further explanation.

I am sending three copies by mail to facilitate distribution to reviewers. Please provide your comments on the study plan directly to me and to Norman Wei at StarKist and Jim Cox at Van Camp. If you or other reviewers have any questions, please feel free to call me at your convenience. I have sent the same material to Sheila Wiegman at ASEPA.

Thank you for your time and attention to this matter.

Sincerely,

CH2M HILL

Steven L. Costa
Project Manager

cc: Norman Wei/StarKist Seafood Company
James Cox/Van Camp Seafood Company

AGENCY REVIEW DRAFT

JOINT CANNERY OUTFALL EUTROPHICATION STUDY PLAN

for

**StarKist Samoa, Inc.
and
VCS Samoa Packing Company**

to comply with NPDES Permits

AS0000019
and
AS0000027

August 1993

prepared by

CH2M HILL

JOINT CANNERY OUTFALL EUTROPHICATION STUDY PLAN

INTRODUCTION

This study plan describes the proposed approach for assessing the algal-nutrient relationships in Pago Pago Harbor, American Samoa. The study is required as a permit condition under NPDES permits for discharge of tuna processing wastewater into outer Pago Pago Harbor through the joint cannery outfall (JCO) operated by StarKist Samoa, Inc. and VCS Samoa Packing Company.

BACKGROUND

The NPDES permits for discharge of cannery wastewater through the JCO require the completion of a eutrophication study of the algal-nutrient dynamics in the harbor. This requirement is described in Part H of permit numbers AS0000019 and AS0000027 as follows:

"The permittee cooperatively with {Star-Kist Samoa, Inc; Samoa Packing Company} shall complete a study in which a direct assessment of the algal-nutrient relationships in Pago Pago Harbor is obtained. This study shall include construction of algal-nutrient response curves for a range of nitrogen-to-phosphorus ratios, nitrogen and phosphorus levels, salinity levels, and phytoplankton communities. This study is not intended to be exhaustive in nature, but to provide information on phytoplankton dynamics utilizing data from past and future water quality and sediment monitoring programs and/or may be conducted in conjunction with these programs as possible.

A proposed study design shall be submitted to ASEPA and EPA for approval within six months of the effective date of the permit. The study shall be completed and report submitted to ASEPA and EPA within one year of the effective date of the permit."

This study plan is being submitted to the U.S. Environmental Protection Agency (USEPA) and the American Samoa Environmental Protection Agency (ASEPA) to comply with the permit conditions described in Parts H of NPDES permit numbers AS0000019 and AS0000027. The study plan proposes and requests a

minor modification of the schedule described in the permit language for reasons discussed below.

The JCO is a new outfall that discharges treated wastewater from the canneries into outer Pago Pago Harbor. The JCO replaces two separate outfalls that previously discharged effluent into the inner harbor near the canneries. The canneries began discharging through the JCO in February of 1992. In addition, prior to initiating discharge through the new outfall, the canneries implemented high strength waste segregation in August 1991. The high strength waste is disposed of in a permitted ocean disposal site and does not influence the harbor.

The effects of high strength waste segregation and outfall discharge relocation on the water quality and algal population dynamics of the harbor are of particular interest. The location of the outfall discharge was based on environmental and engineering studies which included an assessment of effects on water quality including nutrient concentrations and the expected general effects on phytoplankton productivity (CH2M HILL, 1991a,b,c,d,e). The eutrophication study described below is intended to describe the overall algal-nutrient relationships in more detail.

Water quality data for Pago Pago Harbor are available from a number of sources including a study to characterize the baseline water quality in the harbor (M&E Pacific, 1979), previous and ongoing water quality monitoring by ASEPA at specified sampling stations throughout the harbor (required as an NPDES permit condition), and water quality monitoring by the American Samoa Power Authority (ASPA) in conjunction with the Utulei Wastewater Treatment Plant. The ongoing monitoring program includes analysis of water samples from 17 specified stations throughout the harbor for a variety of constituents including total nitrogen (TN), total phosphorus (TP), and chlorophyll-a. Nutrient-algal productivity relationships were addressed, to a limited extent, in a wasteload allocation study for Pago Pago Harbor (HRI, 1989) based on available data.

Two dye studies are also required as conditions of the permits to observe the fate and transport of the effluent plume. The first (non-tradewind season) of these dye studies was conducted on February 17, 1993. The second (tradewind season) is scheduled to be performed in September/October 1993. The data collected from the water quality monitoring program and from the dye studies allow direct observation of the fate and transport of effluent constituents. The NPDES permit requirements dictate that these data be used to verify, and

possibly revise and update, the model predictions used in the earlier engineering studies for determining concentrations of TN and TP throughout the harbor, and to evaluate the effects of biological oxygen demand (BOD) in the effluent on dissolved oxygen (DO) the receiving water. The results of this modeling study, described in a separate study plan, will be used in the eutrophication study.

APPROACH

The eutrophication study will evaluate the algal-nutrient dynamics in Pago Pago Harbor through analysis of available data, field studies of phytoplankton growth in response to various nutrient levels, and modeling of the phytoplankton kinetics and nutrient cycles in the harbor using the EPA approved WASP4 water quality computer model (or equivalent). The study is divided into three separate but interrelated and complimentary tasks:

- **Analysis of Available Data.** Previous and ongoing water quality data will be used to provide a general long-term overview of algal levels and algal-nutrient relationships throughout the harbor.
- **Field Data Collection.** *In situ* field experiments will be conducted to develop algal nutrient response curves. The field data will provide direct data on phytoplankton levels for the conditions encountered during the sample collections.
- **Model Simulations.** The EPA model WASP4 (or equivalent) will be used to predict responses in the harbor to various levels of cannery effluent discharge. The computer model, calibrated and verified based on field observations, will allow representative conditions to be simulated to obtain a better understanding of the response of the harbor system to changes in nutrient loading.

The general approach to each of the major tasks is described below. A more detailed description of the methods to be used is described in the following section on Study Methods. Portions of this study plan are based on the expectation of valid and useful data from the ongoing water quality monitoring program. If there are data gaps in this data, our professional judgement will be used to modify the study as required to best meet the objectives of the permit condition. This will be done in consultation with USEPA and ASEPA.

Analysis of Available Data

Available data will be collected and analyzed to determine the historical response of the system to a range of nitrogen and phosphorus loadings at various locations in the harbor. Sources will include the Baseline Study performed by M&E Pacific (1979), monthly water quality monitoring data collected by ASEPA, available sediment monitoring data, and sediment and water quality data collected by ASPA if available.

Measurements of chlorophyll-a will be used as the indicator for relative phytoplankton levels. Data for each station will be analyzed individually and also grouped according to relative location in the harbor. For the purpose of grouping data, the harbor will be divided into three areas; the inner harbor, middle harbor, and outer harbor; with boundaries for each area as defined in previous studies. Data will be presented graphically and summarized in tabular form.

Field Data Collection

The field studies will be conducted in conjunction with the second dye study scheduled for September/October 1993 and will measure phytoplankton uptake of carbon-14 (^{14}C) as an indication of growth in response to specific nutrient levels. Water samples will be collected from three locations in the harbor (inner, middle, and outer harbor sites) to observe the response of representative phytoplankton communities throughout the harbor.

Model Simulations

WASP4, or an equivalent model as described below, will be used to model the eutrophication of the harbor under a range of conditions. WASP4 is a system of computer programs that can be used to model a range of water quality related processes. The model system, as proposed for use here, consists of two primary elements: a hydrodynamic program that simulates the movement of water, and a water quality program that simulates the movement and interaction of pollutants within the water.

The WASP4 model permits user supplied hydrodynamic data to be used as an alternative to using the included hydrodynamic program. Therefore, flows in the harbor used for the modeling may be taken from the results of CH2M

HILL's wastefield transport model of the harbor (CH2M HILL, 1991a) which is described in the model prediction verification study plan.

The eutrophication processes will be modeled using the EUTRO4 module for the WASP4 model (or a similar routine). EUTRO4 will model a number of reactions including phytoplankton growth and decay, and phosphorus and nitrogen cycles and their interactions.

STUDY SCHEDULE

The NPDES permit states that the eutrophication study should be completed within one year of the effective date of the permit. This study plan proposes a revision to this schedule for consistency with other studies being carried out as permit conditions, particularly the model prediction verification study. The revised schedule would delay the study report by approximately six months. CH2M HILL believes this revision will provide a higher quality, more comprehensive, and more useful study. We are also proposing to accelerate the schedule for the model prediction verification study to be consistent with the eutrophication study. The reasons for the requested change include:

- The most important reason is to revise the study schedule to allow the model prediction verification study and the modeling component of the eutrophication study to be concurrent. There is a significant overlap in most of the aspects of the two efforts. Both studies will benefit, but the eutrophication study will benefit more.
- The water quality monitoring data has not yet been reviewed and processed for use in the studies. This data is required, to some degree, for all three elements of the eutrophication study as well as for the modeling study. It is critical for the analysis of available data and for model calibration. In addition it is needed as a guide for nitrogen and phosphorous dosage levels during the field data collection part of the eutrophication study.
- The WASP4 model can be configured to include a sediment layer. Only one sediment monitoring period has been conducted under the permit condition. CH2M HILL has proposed that the second sediment monitoring data collection period be conducted concurrently with the second dye study. If the modified sediment

monitoring period is approved, additional sediment data would be available for possible use in the eutrophication study.

- The second dye study (September/October) will provide additional data required for the model verifications study. If the eutrophication study and model verification study are to be concurrent then the eutrophication study must be delayed from the schedule specified in the permit condition. In addition, data from the dye study will provide some direct input (for example trapping depths of the plume) of use in the eutrophication study.

Based on the above reasons CH2M HILL believes a minor change in the permit condition allowing the delay of the eutrophication study is worthwhile and desirable. We propose that the field portion of the study be conducted concurrently with the second dye study and that the study be completed within 18 months of the effective date of the permit (changed from one year).

STUDY METHODS

This section provides a more detailed description of the approach summarized above. The major features of the methods used will also be discussed. The approach is designed to maintain consistency with the previous studies and to utilize results of the concurrent model prediction verification study.

AVAILABLE DATA ANALYSIS

Data on water and sediment quality parameters in the inner, middle and outer harbor areas will be compiled from previous monitoring in Pago Pago Harbor. Data from each monitoring station will be compiled and analyzed. These data will be segregated by depth. In addition, data from the three harbor areas, and distinct water column layers within the harbor areas, will be grouped and addressed to separate any differences due to distinctive phytoplankton communities residing in these areas. Data will also be grouped, as available, based on distinct periods of cannery operation including, for example: the period prior to high strength waste segregation, the period after high strength waste segregation but prior to outfall relocation, and following outfall relocation.

Water quality parameters to be compiled will, as data are available, include: temperature, pH, DO, suspended solids, light penetration, turbidity, salinity, chlorophyll-a, TN, TP, and total ammonia. Statistics (including maximums, minimums, means, and variances) of each parameter based on this observed data will be generated to define ranges and expected conditions in the harbor. Sediment quality parameters will be available from two sediment monitoring periods and will include: TN, TP, percent organics, percent solids, size distribution, oxidation-reduction potential and sulfides. In addition to the analysis described below, this data will be used to develop the water quality model.

For each harbor area and operational period, scatter plots will be generated to investigate the effects of various water quality parameters on phytoplankton levels in the harbor. The ordinate for these plots (i.e. the dependent variable) will be chlorophyll-a levels as a measure of phytoplankton in the water. The abscissa for the plots will indicate levels of the water quality parameter of interest including nitrogen, phosphorus, and salinity. Regressions and other appropriate statistical analyses will be performed to illustrate the general trends in the data.

The analyses will use complete data sets for the area of interest as well as partial sets grouped in terms of nitrogen-to-phosphorus (N:P) ratios, if sufficient data are available. Plots generated using complete data sets will show overall trends for system response due to specific levels of nutrients in the water. Plots of partial data sets will show the response of the system to changes in a parameter for data points within a defined range of N:P ratios. Within the limits of the N:P ranges selected, these plots are intended to segregate data for nitrogen- and phosphorus-limited cases.

CARBON-14 UPTAKE FIELD STUDIES

Field studies will be done to measure the rate of photosynthesis based on the rate of carbon uptake. Samples of seawater will be taken from inner, middle, and outer harbor sampling locations. Photosynthesis rates will be measured at each location for a sample at the existing ambient levels of TN and TP as well as at elevated TN and TP levels achieved through spiking of the samples with known amounts of nitrate and phosphate solutions. The procedures discussed below for measurement of algal response to nutrient levels are based on methods by Strickland and Parsons (1972).

Sample Collection

Samples will be collected approximately 3 meters below the surface at each of the selected sampling stations. Approximately three liters of water will be collected at each location and stored in a plastic or glass container in a light tight box to prevent photosynthesis. The samples will be taken to shore for preparation.

A total of eight samples will be collected at each site for the carbon uptake studies: one sample to be used as a blank, one unspiked sample for existing TN and TP levels, and three samples each for spiking with elevated levels of nitrogen and phosphorus respectively. The nitrate or phosphate solutions will be added to the spiked samples to raise the available nitrogen or phosphorus levels above expected ambient levels by a factor of approximately 2, 5, and 10. Expected ambient levels will be estimated based on recent water quality sampling data and previous studies. The sample blank will be treated the same as the unspiked sample except that it will remain in a light tight container for the duration of the studies. Table 1 summarizes the samples that will be collected at each station. An additional sample will be collected at each station and analyzed for ammonia, nitrates, ortho-phosphate phosphorus, TN, TP, pH, and salinity.

Table 1. Samples for Carbon-14 Uptake Studies.		
Sample	TN Concentration	TP Concentration
Blank	Ambient	Ambient
Unspiked	Ambient	Ambient
TN-1	2 x Ambient	Ambient
TN-2	5 x Ambient	Ambient
TN-3	10 x Ambient	Ambient
TP-1	Ambient	2 x Ambient
TP-2	Ambient	5 x Ambient
TP-3	Ambient	10 x Ambient

Sample Preparation

The samples will be prepared indoors out of direct sunlight. Preparation of each sample will involve filling a 300 ml BOD bottle with an airspace at the top sufficient to allow addition of the carbonate and nitrate or phosphate solutions. 2.00 ml of radiocarbon solution of an appropriate strength (25- μ c is appropriate for most ocean work) will be added to each sample. The appropriate volume of nitrate or phosphate solution will be added and each bottle will be topped off with additional sample water. The stoppers for each bottle will be secured with a wire or other appropriate means. The blank will be made up in a blackened bottle that precludes sunlight from entering. As the samples are made up they will be returned to a light tight box.

Illumination

All samples will be removed from the light tight box and placed in a secure location in the harbor at a depth of approximately 3 meters. The samples will remain exposed to sunlight for approximately 5 hours. Upon removal, each sample will be injected with 1 ml of a neutral formaldehyde solution to terminate any further photosynthesis.

Filtration and Storage

The entire contents of each bottle will be filtered through an individual 25-mm HA Millipore membrane filter. The filter will be removed, fixed to a planchette, and stored in a desiccator.

Calculation of Photosynthesis

The samples will be delivered to a laboratory to measure the radioactivity of the phytoplankton samples. The measured photosynthesis will be calculated based on the Geiger counter readings as:

$$\text{Photosynthesis (mg C/m}^3 \text{ per hour)} = \frac{(R_s - R_b) \times W \times 1.05}{R \times N}$$

where: R_s = the normalized counting rate for the sample
(counts per minute of the Geiger counter)
 R_b = the normalized counting rate for the blank

- W = the weight of carbonate carbon present in the water
(mg C/m³)
- R = the count expected from the 2.00 ml radiocarbon
solution
- N = the number of hours the samples were exposed to light

Results will be presented as plots of rate of photosynthesis as functions of nitrogen and phosphorus levels.

WATER QUALITY MODELING

The eutrophication dynamics in Pago Pago Harbor will be simulated using the EPA model WASP4 or an equivalent model. The potential alternative model is an additional modification of the wastefield transport model (PT121) to include the algorithms used in the EPA model. This alternative will be assessed prior to the start of the modeling tasks. EUTRO4, the eutrophication module in the WASP4 system, or an equivalent routine, will be used to model the algal response to changes to TN and TP. Six levels of complexity are available in EUTRO4 depending on the parameters and interactions to be modeled. The simple eutrophication model (level 4), or an equivalent routine, will be used to simulate the algal-nutrient relationships in Pago Pago Harbor.

The major elements of the model will include:

- Two or three layers within the water column, depending on the approach selected for the model prediction verification study discussed above, will be used.
- A sediment layer will be included in the model, if needed, depending on the information available from the sediment monitoring study.
- Advective transport will be limited to tidal currents based on predictions of DYNHYD (the hydraulics module for WASP4) or results from PT121.
- Diffusive transport will be based on the diffusion coefficient(s) developed from the model prediction verification study for the wastefield transport study. Additional calibration/verification runs will be done with WASP4 if there is a significant change in cell

size between the models. Calibration for diffusion coefficient will be based on the water quality monitoring data and will include the quasi-random wind induced transport.

- Other coefficients required in the nutrient response model will be based on field data (by actual measurement or by applying model calibration techniques) and/or accepted values from the literature. We anticipate that most coefficients will be derived from actual field observations.

The model will be run for a range of cannery loading scenarios with the objective of understanding the impacts of cannery discharge on the harbor wide algal response to nutrient loadings. Other point and nonpoint source loadings will be estimated based on available data.

QUALITY ASSURANCE AND QUALITY CONTROL

The quality assurance and quality control objective for the eutrophication study is to combine available monitoring data, field studies, and numerical modeling to evaluate the algal-nutrient response characteristics in Pago Pago harbor to an acceptable confidence level. Quality assurance and quality control will be achieved using appropriate methods for data reduction and analysis, sampling and measurement of field data, and model development and calibration. The following requirements will be followed to meet these objectives:

- Develop and use an operations plan for field studies.
- Provide equipment and material redundancy for field studies.
- Data collection and analysis will be done by qualified personnel with expertise in the study methods and experience in Pago Pago Harbor.
- Selection and use of a laboratory with acceptable QA/QC procedures and relevant experience.
- Verify and calibrate the numerical model based on observed field measurements.

DATA ANALYSIS AND PRESENTATION

A report documenting the results of all analyses will be presented to EPA and ASEPA. The report will include summaries of available data used, field data collected, model input data, and modeling procedures. Pertinent raw data, field logs, chain of custody forms, data analysis procedures, model results and output files, and other documentation (as appropriate) will be reproduced as an appendix to the report. Results will be presented both in tabular form and graphically as appropriate. The report will include: an executive summary; an introduction describing the background, rationale, and general approach of the study; a description of the methods used; a description of the results of each of the three primary tasks; and an evaluation of the results in terms of nutrient loading impacts.

REFERENCES

Ambrose, R.B., et al., 1988. *"WASP4, A Hydrodynamic and Water Quality Model--Model Theory, Users Manual, and Programmer's Guide"*. EPA/600/3-87/039. Environmental Research Laboratory, U.S. Environmental Protection Agency, Athens, GA. January 1988.

CH2M HILL, 1991a. *"Engineering and Environmental Feasibility Evaluation of Waste Disposal Alternatives"*. Final Report. Prepared for StarKist Samoa, Inc. March 1991.

CH2M HILL, 1991b. *"Use Attainability and Site-Specific Criteria Analyses: Pago Pago Harbor, American Samoa"*. Prepared for StarKist Samoa, Inc. and VCS Samoa Packing Co. March 1991.

CH2M HILL, 1991c. *"Site Specific Zone of Mixing Determination for the Joint Cannery Outfall Project: Pago Pago Harbor American Samoa"*. Technical Memorandum prepared for American Samoa Environmental Quality Commission, August 1991.

CH2M HILL, 1991d. *"Draft Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa"*. Prepared for Economic Development Planning Office, American Samoa Coastal Management Program, August 1991.

CH2M HILL, 1991e. "*Final Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa*". Prepared for Economic Development Planning Office, American Samoa Coastal Management Program, October 1991.

HRI, 1989. "*A Wasteload Allocation Study for Pago Pago Harbor, American Samoa*". Prepared for American Samoa Environmental Protection Agency by Hydro Resources International, Arcata, CA.

M&E Pacific. "*Baseline Water Quality Survey in American Samoa*". Prepared for United States Army Engineer Division Pacific Ocean, Honolulu, October 1979.

Strickland, J.D.H. and T.R. Parsons. A Practical Handbook of Seawater Analysis. Bulletin 167 (Second edition), Fisheries Research Board of Canada, Ottawa, 1972

ROUTING AND TRANSMITTAL SLIP

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1. Robyn Stuber W-5-1

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3.

4.

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REMARKS

Please note change to eutrophication study plan, attached.

(Are we having fun yet?)

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

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E-4

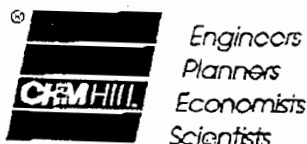
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2 September 1993

PDX30/02.FU.SP

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Dear Pat:

Subject: Joint Cannery Outfall Revised Eutrophication Study Plan

Attached is a revised draft study plan for the eutrophication study required by the NPDES permits for the Joint Cannery Outfall in American Samoa. The revision concerns the replacement of the Carbon-14 Uptake Field Studies because of problems with licensing requirements and custom restrictions. Instead, a Nutrient Stimulation Field Study will be done. This method will deliver results equivalent to those that would have been obtained by the carbon-14 uptake method.

I am forwarding only the revised sections of the study plan by FAX to be followed with a complete original copy by mail. In the faxed version, revisions are indicated in bold type. Please provide your comments on the study plan directly to me and to Norman Wei at StarKist and Jim Cox at Van Camp. I apologize for any inconvenience these changes may cause you. If you or other reviewers have any questions, please feel free to call me at your convenience. I have sent the same material to Sheila Wiegman at ASEPA.

Thank you for your time and attention to this matter.

Sincerely,

CH2M HILL

Steven L. Costa for me
Steven L. Costa
Project Manager

cc: Norman Wei/StarKist Seafood Company
James Cox/Van Camp Seafood Company

CH2M HILL

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P.O. Box 12681, Oakland, CA 94604-2681

510 251-2426
Fax No. 510 893-8205

NUTRIENT STIMULATION FIELD STUDIES

Field studies will be done to measure the rate of phytoplankton growth based on algal biomass changes as measured by chlorophyll concentrations and cell counts. Samples of seawater will be taken from inner, middle, and outer harbor sampling locations. Growth rates will be measured at each location for a sample at the existing ambient levels of TN and TP as well as at elevated TN and TP levels achieved through spiking of the samples with known amounts of nitrate and phosphate solutions. The procedures discussed below for measurement of algal response to nutrient levels are based on methods by Strickland and Parsons (1972).

The previously proposed carbon-14 uptake measurements of photosynthesis were deemed impractical due to carbon-14 licensing considerations. Algal biomass changes assessed as longer-term (5-day) experiments will provide an acceptable measure of nutrient stimulation and actually may provide a more direct measure of algal response than short-term assays (Barlow et al., 1973).

Sample Collection

Samples will be collected approximately 3 meters below the surface at each of the selected sampling stations. Approximately eight to ten gallons of water will be collected at each location and stored in a plastic or glass container in a light tight box to prevent photosynthesis. The samples will be taken to shore for preparation.

A total of eight samples will be collected at each site for the growth rate studies: one sample to be used as a blank, one unspiked sample for existing TN and TP levels, and three samples each for spiking with elevated levels of nitrogen and phosphorus respectively. The nitrate or phosphate solutions will be added to the spiked samples to raise the available nitrogen or phosphorus levels above expected ambient levels by a factor of approximately 2, 5, and 10. Expected ambient levels will be estimated based on recent water quality sampling data and previous studies. The sample blank will be treated the same as the unspiked sample. Table 1 summarizes the samples that will be collected at each station. An additional sample will be collected at each station and analyzed for ammonia, nitrates, ortho-phosphate phosphorus, TN, TP, pH, and salinity.

Table 1. Samples for Phytoplankton Growth Rate Studies .		
Sample	TN Concentration	TP Concentration
Unspiked	Ambient	Ambient
TN-1	2 x Ambient	Ambient
TN-2	5 x Ambient	Ambient
TN-3	10 x Ambient	Ambient
TP-1	Ambient	2 x Ambient
TP-2	Ambient	5 x Ambient
TP-3	Ambient	10 x Ambient

Sample Preparation

Samples will be prepared by filling 1 gallon cubitainers with water from the appropriate site. The appropriate volume of nitrate or phosphate solution will be added and the cubitainer will be topped off with additional sample water and thoroughly mixed. As the samples are made up they will be returned to a light tight box.

Illumination

All samples will be removed from the light tight box and placed in a secure location in the harbor at a depth of approximately 3 meters. The samples will remain exposed to ambient conditions for approximately 5 days. Subsamples will be removed for chlorophyll-a determination from each cubitainer at days 2 and 5.

Filtration and Storage for Chlorophyll-a Determination

Measured subsamples will be taken from each cubitainer following thorough mixing and filtered through individual 25-mm HA Millipore membrane filters. Each of the filters will be removed, folded to enclose the filtered phytoplankton, individually wrapped in light-tight foil, and frozen immediately for transport to the laboratory.

Phytoplankton Cell Counts

Subsamples will be taken from each cubitainer for each collection period for the determination of phytoplankton abundance and biomass as estimated by direct cell counts. The samples will be preserved and stored and will be counted only if needed to provide clarity or elaboration for the chlorophyll-a results. One hundred milliliter samples will be collected from mixed cubitainer contents and preserved with 1% Lugol's solution. Species identifications, as well as cell counts and bio-

volume estimates of biomass will be made using settling chambers and inverted microscope methodology.

Phytoplankton Growth Rates

Samples will be delivered to the laboratory for standard chlorophyll-a analysis immediately after collection on days, 0, 2, and 5 of the nutrient stimulation experiment. Results will be presented as growth rates over the period from days 0-2, 0-5, and 2-5 based on the following equation:

$$\text{Specific Growth Rate}, d^{-1} = (\ln(X2/X1))/(T2-T1)$$

where: X2 = Biomass at end of incubation
 X1 = Biomass at start of incubation
 T2-T1 = Duration of incubation interval

Comparison among test conditions will be based on maximum specific growth rates estimated over the course of the experiment.

Biomass conversions from chlorophyll-a to cell carbon will be made following the recommendations of Strickland and Parsons (1972).

Results will be presented as plots of growth rates as functions of nitrogen and phosphorus levels.

Recd 8/31/93
Copy to Janet H.,
Terryoda



27 August 1993

PDX30702.MD.SP

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Dear Pat:

Subject: Joint Cannery Outfall Model Prediction Verification Study Plan

Attached is a draft study plan for the model prediction verification study required by the NPDES permits for the Joint Cannery Outfall in Pago Pago Harbor, American Samoa. This study plan is for review by USEPA and ASEPA and is intended to comply with Part H of NPDES Permit Numbers AS0000019 and AS0000027. The model study plan is being submitted well ahead of schedule so that the eutrophication study and the modeling study can be conducted concurrently.

I am sending three copies by mail to facilitate distribution to reviewers. Please provide your comments on the study plan directly to me and to Norman Wei at StarKist and Jim Cox at Van Camp. If you or other reviewers have any questions, please feel free to call me at your convenience. I have sent the same material to Sheila Wiegman at ASEPA.

Thank you for your time and attention to this matter.

Sincerely,

CH2M HILL

Steven L. Costa
Project Manager

cc: Norman Wei/StarKist Seafood Company
James Cox/Van Camp Seafood Company

AGENCY REVIEW DRAFT

JOINT CANNERY OUTFALL MODEL PREDICTION VERIFICATION STUDY PLAN

for

**StarKist Samoa, Inc.
and
VCS Samoa Packing Company**

to comply with NPDES Permits

AS0000019
and
AS0000027

August 1993

prepared by

CH2M HILL

JOINT CANNERY OUTFALL MODEL PREDICTION VERIFICATION STUDY PLAN

INTRODUCTION

This study plan describes the rationale and approach of the model prediction verification study for the Joint Cannery Outfall (JCO) in Pago Pago Harbor, American Samoa. The purpose, background, and general approach to the study are presented first. Then the following section provides a detailed explanation of the approaches proposed for the various individual study tasks. Discussions of Quality Control/Quality Assurance and reporting format are then presented, followed by a list of pertinent references. A technical description of the wastefield transport model, a key element of the study, is attached to the study plan.

PURPOSE

The study addresses the verification of models used to determine the permitted zone of mixing (ZOM) for the JCO. The purpose of this study plan is to describe the proposed approaches for: [1] using field data to verify the previous analyses of the ~~fate and transport~~ ^{AND FATE} of cannery effluent, and [2] developing an evaluation effects of the discharge on dissolved oxygen (DO) concentrations throughout Pago Pago harbor.

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BACKGROUND

The JCO is a new outfall operated by StarKist Samoa, Inc. and VCS Samoa Packing Company. The outfall discharges treated wastewater from the canneries into outer Pago Pago Harbor. The JCO replaces two separate outfalls that previously discharged effluent into the inner harbor near the canneries. The canneries began discharging through the JCO in February ~~of~~ 1992. In addition, prior to initiating discharge through the new outfall, the canneries implemented high strength waste segregation in August 1991. The high strength waste is disposed of in a permitted ocean disposal site and does not influence the harbor.

The effects of high strength waste segregation and outfall discharge relocation on the water quality of the harbor were modeled by CH2M HILL (1991a). The size and location of the ZOM ^{WERE} was based on environmental and engineering studies which included model predictions of the initial and subsequent dilution and the farfield transport processes (CH2M HILL, 1991a). Newly issued NPDES permits are based on the approved zone of mixing.

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The NPDES permits require implementation of a receiving water quality monitoring program to determine compliance with water quality standards. The monitoring program includes analysis of water samples from 17 specified stations throughout the harbor. The objective of the monitoring program is to document water quality near the outfall discharge, near the zone of initial dilution (ZID), within the ZOM and at the ZOM boundaries, and at other locations throughout the harbor. Data collection for the monitoring program is conducted monthly by the American Samoa EPA. Monitoring reports documenting the water quality data are submitted to USEPA on a quarterly basis.

Two dye studies are also required as conditions of the permits to observe the fate and transport of the effluent plume. The first (non-tradewind season) of these dye studies was conducted on February 17, 1993. The second (tradewind season) is scheduled to be performed in September/October 1993.

The data collected from the water quality monitoring program and from the dye studies allow direct observation of the fate and transport of the discharged effluent. The NPDES permit requirements dictate that these data be used to verify the model predictions used in the earlier engineering studies for determining the ZOM and to evaluate the effects of BOD in the effluent on DO in the receiving water. This requirement is described in Part J of NPDES permit Numbers AS0000027 and AS0000019 as follows:

"Within three months after both dye studies have been completed, the permittee, cooperatively with {Star-Kist Samoa, Inc.; Samoa Packing Co.}, shall submit a study plan to USEPA and ASEPA that will discuss how the permittees will utilize the results from the monitoring data and from the dye studies to verify the models used in the determination of the mixing zones (the 30-second dilution zone, the ZID, and the ZOM). Also, the plan shall discuss how the permittee will examine the effects of BOD, in the effluent on Dissolved Oxygen (DO) in the receiving water, utilizing an appropriate model and one year's worth of ambient data. Upon

approval of the study plan by USEPA and ASEPA, the permittee shall initiate the studies indicated and submit reports on a yearly basis. Reports shall summarize renewed predictions of dilution rates and the size, location, and movement of the plume based on the calibrated models".

This study plan is being submitted to the U.S. Environmental Protection Agency (USEPA) and American Samoa Environmental Protection Agency (ASEPA) to comply with the permit conditions.

APPROACH

The study is divided into two primary tasks:

- **Model Verification.** The modeling procedures used to establish the ZOM will be evaluated based on data collected during the dye studies and the water quality monitoring program.
- **BOD Impacts.** The effects of BOD (measured BOD₅) in the effluent on DO in the receiving waters will be evaluated.

The general approach to each of the major tasks is described below. A more detailed description of the methods to be used is described in the following section on Study Methods.

Model Verification

The basic approach used in the previous engineering study to determine the required mixing zone dimensions was to: estimate the large-scale, long-term average ambient receiving water concentrations using a wastefield transport model, evaluate initial and subsequent (or secondary) dilution for a range of conditions, and, based on model predictions, determine the appropriate location for the discharge and the required size of the ZOM to comply with American Samoa Water Quality Standards (ASWQS). This approach will be evaluated by running the models for the conditions present during the dye studies and water quality monitoring, as appropriate, and comparing the model results with the observed field data. The three separate subtasks identified above include:

- **Wastefield Transport Model.** Observed long-term average receiving water concentrations, on a harbor wide scale, for total nitrogen (TN) and total phosphorus (TP) will be based on concentrations observed at each of the water quality monitoring sampling stations. Average loadings of TN and TP to the harbor from the discharge will be calculated for the same period of time. The wastefield transport model will be run using these average loadings and evaluated by comparing the model results to the observed water quality data.
- **Initial and Subsequent Dilution Models.** The initial and subsequent dilution modeling procedures used to establish the mixing zone boundaries will be evaluated based on the dye study results. Model input will include measured currents, temperature and salinity profiles, and effluent flows present during each dye study. The model results will be compared to the dilutions observed during the dye studies and to previous predictions. The formulation of the effluent limits for ammonia were based on predicted diffuser performance in terms of initial dilution rate and magnitude. The predictions used for this purpose will be specifically evaluated as a part of this subtask.
- **Zone of Mixing Location and Size.** The ZOM location and dimensions will be re-evaluated if significant discrepancies between predicted and observed TN and TP values occur. Discrepancies will be addressed by recalibration of each model to match the observed data and running the re-calibrated models for a range of conditions representative of the worst case conditions expected in the harbor.

BOD Impacts

BOD impacts on receiving water DO will be evaluated using the same wastefield transport model, or an equivalent model, used to calculate ambient TN and TP concentrations. The impacts will be addressed using the verified (and possibly recalibrated) model discussed above to calculate the potential impacts of cannery effluent on DO levels throughout the harbor. A BOD/DO routine in the model will be used to simulate effects of various BOD loadings from the canneries discharge.

SCHEDULE

Sufficient information was collected from the first dye study to allow the formulation of this study plan. Therefore, the study plan is being submitted prior to the second dye study to facilitate coordination with the eutrophication study, also required as a NPDES permit condition. Coordination of the two studies will benefit both, but particularly assist in doing the eutrophication study. The proposed schedule is to have the report for initial model study finished and delivered to USEPA and ASEPA by May 31, 1994. The first report for the modeling study will include recommendations for subsequent annual reports as required in the permit condition. This schedule is based on the assumptions that the second dye study is carried out near the end of September or beginning of October 1993, and the water quality monitoring data are available by the end of 1993.

STUDY METHODS

This section provides a more detailed description of the approach summarized above. The major features of the methods used will also be discussed. The approach is designed to maintain consistency with the previous studies done to determine the appropriate outfall location and the size of the ZOM. The same models will be used, but the input conditions may be changed to reflect the data collected during the dye studies and the water quality monitoring program. Additional technical details concerning the models and previous model results can be found in the *"Engineering and Environmental Feasibility Evaluation of Waste Disposal Alternatives"* (CH2M HILL, 1991a), the *"Site Specific Zone of Mixing Determination for the Joint Cannery Outfall Project: Pago Pago Harbor American Samoa"* (CH2M HILL, 1991c), and the *"Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa"* (CH2M HILL, 1991d and e).

MODEL VERIFICATION

Numerical model predictions used as the basis for defining the ZOM for the JCO addressed both the long-term effects of the discharge on the TN and TP levels throughout the harbor and the dilution and dispersion associated with initial and subsequent mixing processes in the vicinity of the diffuser. The long-term processes determine the average levels of the effluent constituents in the ambient receiving water of the harbor. These levels must be known to calculate

constituent concentrations resulting from the initial and subsequent dilution processes. The ambient water is the diluting water for the initial dilution process and for an enclosed bay, such as Pago Pago harbor, the ambient concentrations are affected by the effluent discharge levels.

Verification of the previous model predictions will involve verifying predictions of long-term ambient constituent levels compared with levels measured during the water quality monitoring program, verifying initial and subsequent dilution predictions based on dye study results, and re-evaluation of constituent concentrations, if necessary, based on recalibrated models. Brief descriptions of the models used are included in the discussions below and more detailed technical information is referenced. Application of the various models to verify previous predictions and comply with the NPDES permit conditions are described below.

Wastefield Transport Model: Ambient Concentrations

Previous predictions of ambient conditions in Pago Pago Harbor because of the operation of the JCO used a wastefield transport model (PT121). This model is described in more detail in Attachment A and in CH2M HILL, 1991a. The model, developed by CH2M HILL, was based on a model originally developed by HRI (1989) for a wasteload allocation study of Pago Pago Harbor. The results were presented as a series of contour plots of TN and TP concentrations for a range of discharge loadings and alternative outfall sitings.

Water quality, effluent chemistry, flow data and additional oceanographic data collected since the outfall became operational will be used as input to the wastefield transport model. Long-term average TN and TP loadings from the cannery discharges will be calculated based on effluent monitoring data collected by the canneries for a period of at least one year. Loadings from other point sources (e.g. the Utulei Sewage Treatment Plant), nonpoint sources, and open ocean background (a boundary condition) will be estimated from available data. PT121, using the same geometry as used in the previous study (CH2M HILL, 1991a), and as calibrated for the previous study, will be run using the long-term average loadings.

Results will be presented in the form of contour plots of TN and TP throughout the harbor. These predicted concentrations will be compared to long-term average TN and TP levels measured at water quality monitoring stations over the same period of time. For comparison with predicted data, maximum,

minimum and long-term average ambient concentrations will be determined for each of the station locations from quarterly water quality monitoring reports.

The previous model was calibrated for a data set based on discharges in the inner harbor. Some differences between model predictions and measured concentrations of TN and TP are expected. We anticipate the previous model results to be conservative (i.e. overpredict concentrations throughout the harbor). If necessary, the model will be recalibrated for the new location based on the available data. The predictions of the wastefield transport model, recalibrated if necessary, will be used for the re-evaluation of mixing zone location and size and for the BOD/DO evaluation described below.

Initial and Subsequent Dilution Models

Initial and subsequent dilution characteristics of the outfall were previously analyzed using the USEPA models UDKHDEN (Muellenhoff et al., 1985) for initial dilution and CDIFF (Yearsley, 1987) for subsequent dilution processes. The models were used to evaluate the diffuser performance and plume behavior for a range of effluent flow conditions for typical ambient receiving water conditions. The mixing zone characteristics were based on the worst case conditions.

UDKHDEN is a fully three-dimensional model that considers variable profiles throughout the zone of flow establishment and uses a fourth-order integration routine along the centerline of the effluent plume to trace plume position and dilution over time during the rapid initial dilution processes. The model predicts dilution (in terms of mixing with ambient water) and the trapping level of the effluent plume.

CDIFF is a passive diffusion plume model that can be applied following the momentum and buoyancy driven initial dilution process. Diffusion is calculated in the lateral direction only as the plume is advected in the longitudinal direction by ambient currents. The model allows specification of one of three functional forms for the coefficient of lateral eddy diffusivity (as a function of characteristic plume dimension). The model assumes the plume is trapped with a constant vertical extent or fully mixed over the depth of the water column. A constant current is assumed and the model accounts for a solid shoreline boundary parallel to the direction of the current.

The initial and subsequent dilution models will be run based on the as-built diffuser configuration and environmental and flow conditions measured during the dye studies. Input for the initial dilution model, UDKHDEN, will include: diffuser configuration (port size, port depth, and number and spacing of ports), temperature and salinity profiles, current profiles, and effluent flow and density. Temperature and salinity profiles were taken during the dye studies. The profiles taken nearest the diffuser will be used as representative of the conditions during initial dilution. A range of ambient currents will be selected based on the currents measured over the course of the studies. Initial and subsequent dilution model procedures used in the previous study will be repeated for the conditions observed during the dye studies.

Results of the dilution models will be presented as plots or tables of centerline and flux average dilution versus distance from the diffuser. The centerline dilutions observed during the dye studies will be compared to the predicted values. The dilution models are not easily calibrated without changes to the model code. However, a correction factor can be developed that relates model prediction to observation. This is functionally a calibration curve, and serves the same purpose as model calibration for a particular set of conditions. If required, correction or "calibration" factors will be developed and applied to model results. Corrected results will be applied to the re-evaluation of the mixing zone characteristics and the BOD/DO evaluation as described below. In addition, the results will be used to evaluate the effluent limits for ammonia (which are based on a ZID that depends on diffuser initial dilution performance), the predicted trapping level, and the size of the physical ZID.

Evaluation of Mixing Zone

If the difference between the model predictions and field observations for all three model predictions (wastefield transport, initial dilution, and subsequent dilution) is small the dilution models will not be recalibrated and re-evaluation of ZOM size and location will not be required. If it is determined that the model predictions are conservative (i.e. underpredict dilutions or overpredict the TN and TP levels) a qualitative description of the differences will be presented and the models will be recalibrated (or calibration factors developed) for use in the BOD/DO evaluation described below. If there is a significant discrepancy between the model predictions and field observations such that the models overpredict dilutions and underpredict TN and TP concentrations, the models will be recalibrated to minimize the differences between predicted and

observed results and the size and location of the mixing zone will be re-evaluated.

Calibration of the wastefield transport model, if necessary, will be accomplished by varying the value of the diffusivity coefficient (K), varying the decay term for the constituent of concern, or a combination of both. The diffusion and decay coefficients can be varied along the longitudinal axis of the harbor. The previous analysis assumed a zero decay and the calibration of the model was based solely on varying K. The model configuration used different values of K for the inner and outer harbor. The dilution models will be calibrated, if necessary, primarily by varying the coefficient of lateral diffusivity in CDIFF and developing calibration factors for UDKHDEN and CDIFF as described above.

BOD/DO EVALUATION

The effects of BOD loadings in the cannery effluent on DO throughout the harbor will be evaluated using PT121, recalibrated if necessary, as described above, or using EPA's water quality model WASP4 (Ambrose et al., 1988). PT121 has been modified to include a routine developed to simulate BOD and DO interactions. The model is formulated for depth averaged applications and is useful for looking at long-term or slowly varying effects averaged through the water column. However, the available information on water column constituents in general (HRI, 1989; CH2M HILL, 1991a) and on dissolved oxygen in particular (CH2M HILL, 1991b) indicates that the water column can best be described as a two or three layer system. This effect is relatively small for TN and TP but may be significant for DO. Therefore, PT121 may be modified, or run in appropriate configurations, to simulate a multilayer system or WASP4 will be used for this evaluation. The decision on which model to use will be based on a review of available data and the extent of modifications required for PT121.

The model will be run for two kinds of simulations: an average long-term simulation such as that done for TN and TP as discussed above and for a representative time history of BOD inputs from the cannery discharges representing a worst case scenario. BOD₅ loadings based on available effluent chemistry data and observed DO levels from available water quality monitoring data will be used to calibrate the model. The horizontal and vertical diffusivities, decay of BOD and utilization of DO, consumption of DO other than by BOD, and re-aeration coefficients will be adjusted to achieve

calibration. Other point and nonpoint sources of BOD will be identified if possible, however this "background" will be generally included as an additional calibration coefficient representing some elevation above open ocean background (included as a boundary condition). The calibrated model will be verified using a separate data set.

The wastefield transport model (PT121 or WASP4) can not be used to evaluate DO impacts within or in the immediate vicinity of the effluent plume. Therefore, results from the initial and subsequent dilution models will be applied to evaluate the nearfield effects within the effluent plume. This procedure will use the results of the wastefield transport model to provide ambient receiving water values as in the case of TN and TP described above. Measurements of immediate dissolved oxygen demand (IDOD) of the combined effluent from both canneries will be made in the field during the second dye study. The measured value of IDOD will be used for evaluation of the effects of BOD in the plume as it mixes with receiving water.

QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance and quality control will be achieved through use of the accepted and proven models executed by staff familiar with those models. Specific QA/QC measures include: validation, calibration and verification of models with field data, addressing a range of potential conditions where appropriate, sensitivity analyses, and documentation and maintenance of input and output files generated during modeling activities. A significant portion of the modeling effort is directed at keeping a high level of confidence in the predictions of the models. The purpose and scope of this effort and a description of the techniques that will be used are described below. There is often confusion and misunderstanding about the technical terminology used in this process. To avoid confusion the functions described as validation, calibration, and verification are defined below.

The purpose of the QA/QC effort is to provide a high level of confidence that the models are providing physically realistic predictions. There are two efforts required: first, it is important that the model configuration developed for the harbor be calibrated and verified (tested against site specific data) and, second, it is just as important that the basic model code be based on sound physical assumptions (the underlying science and mathematical formulation are accurate reflections of reality).

Validation. The models employed in the study are mathematical representations of physical processes. The mathematical equations used are solved numerically (approximate solutions) using a digital computer. It is important that this process, which is considerably removed from the actual physical processes and behavior of the harbor, accurately simulate what happens in the harbor. The process of validation uses representative parameters for simplified system configurations to determine if the predictions reflect reality. The process of validation begins as the initial model computer code is written and continues as long as the model code is used. It is particularly important that any changes in model code be checked for validity. The final element of validation is a determination of how sensitive a model is to changes in input parameters. An extremely sensitive model probably does not provide results with a high confidence level. Sensitivity checks will be carried out for each of the models for potentially critical parameters.

Calibration. Most numerical models of the type used here contain coefficients (e.g. friction factors, diffusion coefficients) that are often study site specific. Although there are generally accepted values for these coefficients, the range observed in nature is high and the models can be somewhat sensitive to the values selected. The process of calibration uses measured values of forcing functions and responses to determine the appropriate coefficients for the model configuration at the study site. Typically a set of field data, say water level, will be measured and the appropriate coefficient, in this case friction factor, will be varied until the model results match the observed results for the observed forcing function and model geometry.

In the case of the initial dilution model and, to a lesser extent, the subsequent dilution model, it may be inappropriate to modify the original model code. These models are intended for general use by EPA and consistency is an important consideration. In this case it is more appropriate to develop a correction factor or calibration curve to be applied to the results of the model. This process is similar to the development of calibration curves routinely developed for instrument read-outs or data measurements.

Verification. It is possible to "force" a model to reproduce observed results by means of calibration. Successful calibration does not necessarily mean that the model is operating correctly under other conditions. Verification is a check that utilizes an observed data set independent from the one used for calibration. Typically the calibrated model is run under different environmental conditions,

say loadings of TN from the discharges, and the response of the model, in this case TN concentrations at selected points in the harbor, is compared to observed concentrations at those points. Verification, combined with validation and sensitivity determination, provides a high level of confidence that the model is simulating the system under a range of conditions.

Model Code Modifications. Model code modifications may be required for a variety of reasons. No modifications are planned for the primary algorithms except for possible revisions to PT121 as described above. Some minor changes in program structure to increase ease of use will probably be done. All model code changes will be documented and tested.

DATA ANALYSIS AND PRESENTATION

A report documenting the results of all analyses will be presented to EPA and ASEPA. The report will include summaries of all input data, modeling procedures, model calibration and verification, and model results. All pertinent model results and output files (as appropriate) will be reproduced as an appendix to the report. Model results will be presented both in tabular form and graphically (i.e. contour plots) as appropriate. The report will include: an executive summary; an introduction describing the background, rationale, and general approach of the study; a description of the methods used including model formulation and input data; a description of the model results; an evaluation of the model validity for predicting dilution and plume characteristics; an evaluation of the ZOM characteristics; and an evaluation of BOD impacts.

REFERENCES

Ambrose, R.B., et al., 1988. *"WASP4, A Hydrodynamic and Water Quality Model--Model Theory, Users Manual, and Programmer's Guide"*. EPA/600/3-87/039. Environmental Research Laboratory, U.S. Environmental Protection Agency, Athens, GA. January 1988.

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CH2M HILL, 1991d. *"Draft Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa"*. Prepared for Economic Development Planning Office, American Samoa Coastal Management Program, August 1991.

CH2M HILL, 1991e. *"Final Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa"*. Prepared for Economic Development Planning Office, American Samoa Coastal Management Program, October 1991.

HRI, 1989. *"A Wasteload Allocation Study for Pago Pago Harbor, American Samoa"*. Prepared for American Samoa Environmental Protection Agency by Hydro Resources International, Arcata, CA.

Muellenhoff, W. P., et al., 1985. *"Initial Mixing Characteristics of Municipal Ocean Discharges: Volume I, Procedures and Applications"*. EPA-600/3-85-073a. U.S. Environmental Agency, Office of Research and Development. November 1985.

Yearsley, John, 1987. *"Diffusion in Nearshore and Riverine Environments"*. EPA 901-9-87-168. U.S. Environmental Protection Agency.

ATTACHMENT A

PT121 Model Description

PT121 is based on the HARBOR model used for the Wasteload Allocation Study (HRI, 1989). The wasteload allocation study should be referenced for more information on the basic physical principles and model approach.

PT121 is a quasi-two-dimensional (Q2D) completely stirred tank reactor (CSTR) model. The term Q2D refers to the following model attributes:

- It is a two-dimension horizontal approach that is depth-averaged. There is no variation of any variable with depth. However, the depth does vary throughout the harbor model. It is not a constant-depth model.
- The model is set up in a grid that is laterally symmetric about the longitudinal axis of the model. The longitudinal axis is transformed into a straight line.
- The model grid is set up in two levels. Square cells of constant dimension are used for the calculation of concentrations and transport in both horizontal directions. Rectangular "line cells" are composed of integral numbers of cells in a line perpendicular to the harbor axis. These line cells form the basis for calculating total flow rates in the longitudinal direction and the input of nonpoint source flows and pollutant loading.
- Lateral advective flows are symmetrical about the longitudinal axis, and there is no advection across the longitudinal axis. These flows are calculated on the basis of mass conservation. Longitudinal advective flows are equally divided between individual cells in a line cell, with the provision of no flow through a solid boundary.
- Flow rates are on the basis of changes in volume due to tidal elevation changes. The water surface is considered to change instantaneously throughout the system. Tides are input in tabular form. Thus, longitudinal flows are calculated on the basis of conservation of mass.
- Point source flows and loadings are added to individual cells. Nonpoint source flows and loadings are added to line cells and are equally distributed to cells within the line cell.

- Diffusion coefficients and decay rates can vary along the longitudinal axis of the system but are constant within a line cell. Diffusion is the same in both horizontal directions.
- Diffusive transport is calculated as a Fickian process based on eddy diffusivity. This transport is calculated on a cell-by-cell basis with no transport allowed through a solid boundary.

The term CSTR refers to the following model approach to calculating concentration:

- The total mass of a constituent is calculated from the concentration and cell volume for each cell.
- On the basis of tidal data, the volume of the cell is changed.
- Advective transport is allowed to carry mass to and from adjoining cells on the basis of the concentration, flow rate, length of the time step, and area between the cells. The area is based on the average depth of the two cells and cell width.
- Diffusive transport carries mass between cells on the basis of concentration gradient, area between adjoining cells, and the length of the time step.
- Point source loadings are introduced into appropriate cells. Point source flows are also introduced into individual cells. The mass of constituent and volume of water are based on loadings, flows, and length of the time step.
- Nonpoint source inputs are calculated the same way as point source inputs, but each cell in a line cell has equal inputs.
- The original mass in each cell is allowed to decay on the basis of the specified first order decay constant and the length of the time step.
- Each of the inputs and outputs of mass into each cell is added to the initial mass less the amount of decay, and a new concentration is calculated.

PT121 is run by supplying the required instructions and parameters by means of input files read by the program as it executes. The model is written and compiled in TurboBasic on an IBM-compatible computer operating under

MSDOS. The input is in four separate files. The job control file provides input for:

- Input/output file names
- Size of model grid (number of cells)
- Time step length
- Horizontal cell dimension
- Where to start reading from tide data file
- Number of days to do calculations
- Number of point sources considered
- Amount of tidal data to be read
- Input/output control parameters
- Cells where point source loadings are found
- Point source loadings and flows

The hydrodynamics file provides input for cross-sectional area, width, and nonpoint source flows as a function of distance along the harbor (for each line cell).

The tidal data file provides input for tidal elevation as a function of time in tabular format. The water quality/geometry data file provides input for the following parameters and variables:

- Initial concentration as a function of distance along the harbor, and boundary concentration at the open end of the harbor.
- Eddy diffusion coefficient as a function of distance along the harbor.
- Decay rate coefficient as a function of distance along the harbor.
- Nonpoint source loading as a function of distance along the harbor.
- Definition of the cells constituting the side boundaries of the system.
- Depth of each cell at the appropriate tidal elevation.
- Definition of the boundary condition for each of the boundary cells of the system.

The model results are provided in three optional output files as specified in the job control input file. These files are described below, and example output to a printer is shown. The files consist of a "mirror file" that primarily presents

the input, a hydrodynamics file that provides results of the flow calculations, and a water quality output file that provides the results of the transport calculations.

The mirror file provides a listing and tabulations of the input values read and initially manipulated by the program. The primary function of this file is to provide documentation and allow the operation of the program to be checked. The file is generally used for validation runs and is switched off during production runs. The mirror file has the following parts:

- A title page that provides a description of the important program and model control parameters
- A summary of hydrodynamic and geometric data
- A tabulation of the tidal data used by the routine
- A tabulation of water quality inputs including initial concentrations, diffusivity and decay coefficients, and loadings
- A tabulation of cell depths that are input in feet and converted to meters
- A table of boundary conditions. The significance of the various boundary conditions can be determined by reference to the model code

The hydrodynamics file is also generally used for program validation and is switched off during production runs. This file contains a tabulation for each time step of the change in volume, flow rate, cross-sectional area, and velocity for each line cell or line cell boundary.

The water quality output file gives a description of the concentration at the end of each time step in each cell. The output interval for both the hydrodynamics and water quality output files can be specified if each time step is not desired.

StarKist Seafood, Inc.

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February 04, 2005

Mr. Carl L. Goldstein
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75 Hawthorne Street
San Francisco, CA 94105

Mr. Peter Peshut,
Director, ASEPA
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EOB Utulei, American Samoa 96799

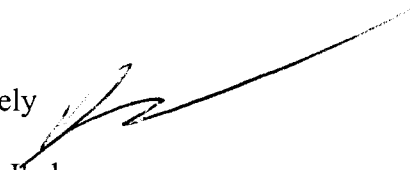
Gentlemen :

Re : **Discharge Monitoring Report for the Months of October, November and December of 2004,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of
October, November and December of 2004.

Star Kist Samoa met all Effluent limits.

Sincerely


Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM

YEAR MO DAY
2004 10 01


TO

YEAR MO DAY
2004 10 31

(20-21) (22-23) (24-25)

(26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		30-DAY AVERAGE (46-53)		DAILY MAXIMUM (54-61)	UNITS	30-DAY AVERAGE (46-53)		DAILY MAXIMUM (54-61)				UNITS
FLOW	SAMPLE MEASUREMENT	1.059849	1.740288	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9								"	"
BOD5	SAMPLE MEASUREMENT				426.3	426.3	426.3	mg/l	0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"	
TSS	SAMPLE MEASUREMENT	840.3	970.9	lbs/day	58.7	66.7	78.7	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"	
OIL & GREASE	SAMPLE MEASUREMENT	131.3	162.9	lbs/day	8.2	10.4	12.6	mg/l	0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	158.4	177.6	lbs/day	9.8	12.1	14.1	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	979.2	1143.3	lbs/day	63.0	74.7	85.0	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				21.3	25.8	31.5	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE			
LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED												
COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE NUMBER YEAR MO DAY			

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

FROM


MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	10	01	2004	10	31

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)			
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					83	93		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.6		7.2		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		"	"
TOTAL ZINC	SAMPLE MEASUREMENT					229.0	229.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)		TELEPHONE		DATE	
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED			AREA CODE	NUMBER	YEAR	MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of October 2004

	Production	Flow	Alum	Poly	Max	pH Limits		Oil &Grease		TSS		TP		TN		Total	BOD
Date	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	579.4973	1.540481	318.2	14.8	84	6.7	6.8										
2		0.937127	133.3	5.5	84	6.7	6.8										
3		0.892832	223.6	8.6	78	6.7	6.7										
4	596.5150	1.452208	279.5	15.5	82	6.7	6.7										
5	562.1198	1.554855	447.2	16.0	83	6.7	6.9	12.6	162.9	62.7	810.7	13.6	175.9	69.0	892.2	21.3	426.3
6	572.7830	1.603120	537.5	14.7	84	6.7	6.8					12.6	168.0	78.0	1039.9		
7	579.8738	1.546715	481.6	14.6	84	6.7	6.7										
8	578.7893	1.520196	516.0	15.0	82	6.7	6.8										
9		0.614832	111.8	3.8	85	6.7	6.8										
10		0.348958	30.1	1.3	80	6.7	6.7										
11	SHUT DOWN	0.249038	68.8	1.8	78	6.7	6.7										
12	SHUT DOWN	0.260403	17.2	1.4	77	6.7	6.7										
13	SHUT DOWN	0.171441															
14	SHUT DOWN	0.389968	51.6	0.6	77	6.7	6.7										
15	SHUT DOWN	0.291448	55.9	1.9	75	6.7	6.7										
16	SHUT DOWN	0.321668	34.4	2.3	80	6.7	6.7										
17		0.777147	202.1	9.5	78	6.7	6.7										
18	612.5515	1.582068	412.8	15.5	83	6.7	7.1										
19	607.1345	1.587948	464.4	16.1	83	6.7	7.2										
20	613.9560	1.514796	352.6	15.3	86	6.7	6.9	10.3	129.7	58.7	739.4	14.1	177.6	74.0	932.2	31.5	
21	601.0283	1.740288	485.9	16.3	85	6.6	7.1					11.7	169.3	79.0	1143.3		
22	599.3550	1.382761	326.8	11.3	86	6.8	6.7										
23		0.631094	124.7	4.3	85	6.7	6.7										
24		0.761971	219.3	9.1	78	6.7	6.7										
25	607.8058	1.506344	378.4	15.1	85	6.7	6.8										
26	607.6443	1.483492	498.8	16.1	82	6.7	6.9	8.2	101.2	78.7	970.9	9.8	120.9	63.0	777.2	24.6	
27	582.6775	1.542908	408.5	15.0	87	6.7	6.8					10.8	138.6	85.0	1090.6		
28	607.6160	1.642363	365.5	14.6	85	6.7	6.8										
29	595.8423	1.428895	348.3	14.2	86	6.7	6.9										
30		0.573209	141.9	4.1	93	6.7	6.8										
31		1.004731	172.0	6.5	80	6.7	6.7										
TOT	9505.1894	32.855305	8208.7	300.8					393.8		2521.0		950.3		5875.4		
AVG	594.0743	1.059849	273.6	10.0	83			10.4	131.3	66.7	840.3	12.1	158.4	74.7	979.2	25.8	426.3

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM

TO

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	11	01	2004	11	30

(20-21)

(22-23)

(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)					
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS					
FLOW	SAMPLE MEASUREMENT	1.191486	1.669439	mgd					0	Continuous	Recorder		
	PERMIT REQUIREMENT		2.9								"	"	
BOD5	SAMPLE MEASUREMENT				442.0	442.0	442.0	mg/l	0	Once/Month	Composite		
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"		
TSS	SAMPLE MEASUREMENT	1092.4	1443.6	lbs/day	59.3	83.2	105.3	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"		
OIL & GREASE	SAMPLE MEASUREMENT	290.7	545.8	lbs/ day	12.4	22.3	40.8	mg/l	0	Once/Week	Grab (2)		
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"		
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	152.9	182.3	lbs/day	10.7	11.7	13.3	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"		
TOTAL NITROGEN	SAMPLE MEASUREMENT	935.4	1220.1	lbs/day	55.0	71.5	89.0	mg/l	0	One Set/Month (3)			
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"		
TOTAL AMMONIA	SAMPLE MEASUREMENT				26.0	30.6	36.3	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT				N/A	N/A	133			"	"		
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE	
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED									SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			AREA CODE	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

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LOCATION

MONITORING PERIOD

FROM

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	11	01		2004	11	30

(20-21)

(22-23)


(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		(46-53)		(54-61)	UNITS	MINIMUM	(46-53)					(54-61)
		30-DAY AVERAGE	DAILY MAXIMUM	30-DAY AVERAGE			DAILY MAXIMUM	UNITS				
TEMPERATURE	SAMPLE MEASUREMENT					86	92	° F	0	Continuous	Continuous	
	PERMIT REQUIREMENT					90	95			"	"	
pH	SAMPLE MEASUREMENT				6.5	7.1	STD/UNITS	0	Continuous	Continuous		
	PERMIT REQUIREMENT				6.5	8.6			"	"		
TOTAL COPPER	SAMPLE MEASUREMENT					<100	<100	µg/L		Once/Month	Composite	
	PERMIT REQUIREMENT					66	108			"	"	
TOTAL ZINC	SAMPLE MEASUREMENT					319.0	319.0	µg/L	0	Once/Month	Composite	
	PERMIT REQUIREMENT					1545	1770			"	"	
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)											
LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT											
COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)		TELEPHONE				DATE						
		AREA CODE				NUMBER				YEAR		
										MO		
										DAY		

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

The result for Total Copper was reported as <100µg/L because the sample had to be diluted as per our Contract Lab AECOS.

Wastewater Summary Report for the month of November 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	610.5258	1.406286	296.7	14.0	86	6.7	6.9										
2	588.3810	1.450707	344.0	15.5	87	6.7	7.0	20.0	241.3	59.3	715.4	11.4	137.5	78.0	941.0	27.9	
3	612.7988	1.626669	356.9	14.0	88	6.7	6.9					12.2	165.0	56.0	757.5		
4	607.0838	1.669439	374.1	14.6	87	6.7	6.8										
5	609.9733	1.410376	296.7	14.7	86	6.7	6.8										
6		0.690582	94.6	3.4	83	6.7	6.8										
7		0.851038	240.8	9.8	81	6.7	6.8										
8	605.2205	1.566398	318.2	16.2	85	6.7	6.8										
9	621.6713	1.541516	442.9	16.1	86	6.7	7.1	12.4	159.0	66.0	846.1	11.5	147.4	87.0	1115.3	32.1	442.0
10	613.2793	1.621124	348.3	12.8	87	6.7	6.8					11.6	156.4	65.0	876.3		
11	613.1593	1.664801	404.2	10.8	87	6.7	6.8										
12	605.6630	1.360281	313.9	10.0	90	6.7	6.7										
13		0.544226	167.7	5.1	92	6.7	6.7										
14		0.686544	193.5	7.0	81	6.7	6.7										
15	599.2345	1.283616	382.7	12.6	88	6.7	6.7										
16	532.1450	1.544449	365.5	12.9	86	6.7	6.8										
17	614.2910	1.648565	455.8	13.3	88	6.7	6.8	15.8	216.6	105.3	1443.6	13.3	182.3	89.0	1220.1	36.3	
18	606.5595	1.587084	412.8	13.8	86	6.6	6.8					11.3	149.1	55.0	725.9		
19	604.1455	1.485307	425.7	13.1	88	6.7	6.8										
20		0.578550	107.5	3.7	92	6.7	6.7										
21		0.774675	167.7	4.7	82	6.7	6.7										
22	589.9853	1.246785	378.4	11.2	84	6.7	6.9										
23	621.3363	1.608613	455.8	13.4	87	6.7	6.9	40.8	545.8	102.0	1364.5	11.3	151.2	80.0	1070.2	26.0	
24	604.6660	1.507315	382.7	12.5	89	6.7	6.7					10.7	134.1	62.0	777.2		
25		0.524016	120.4	3.0	92	6.7	6.7										
26		0.274225	120.4	2.2	81	6.7	6.7										
27		0.256140	51.6	2.6	83	6.5	6.7										
28		0.614796	223.6	5.1	82	6.7	6.8										
29	598.3435	1.240768	421.4	13.7	85	6.7	6.8										
30	613.2495	1.479675	374.1	11.9	88	6.7	6.8										
TOT	12071.7122	35.744566	9038.6	313.7					1162.7		4369.6		1223.0		7483.5		
AVG	603.5856	1.191486	301.3	10.5	86			22.3	290.7	83.2	1092.4	11.7	152.9	71.5	935.4	30.6	442.0

Wastewater Summary Report for the month of December 2004

	Production	Flow	Alum	Poly	Max	pH Limits		Oil &Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	609.9440	1.444468	425.7	10.8	87	6.7	6.9	6.2	74.5	72.0	864.9	12.6	151.4	83.0	997.0	44.7	417.0
2	599.8235	1.322733	477.3	10.7	87	6.7	6.8					13.0	143.0	79.0	869.0		
3	613.6518	1.337513	382.7	10.3	89	6.7	6.8										
4		0.591517	133.3	2.9	93	6.7	6.7										
5		0.596218	146.2	4.9	83	6.7	6.7										
6	612.1935	1.262055	391.3	10.6	83	6.6	6.7										
7	616.9473	1.388232	490.2	10.4	83	6.7	6.8										
8	625.5140	1.456886	417.1	8.9	84	6.7	6.8	43.8	530.7	258.0	3125.8	13.4	162.3	84.0	1017.7	36.2	
9	611.2063	1.477541	412.8	10.4	85	6.7	6.7					13.4	164.6	73.0	897.0		
10	610.7975	1.358193	391.3	10.0	85	6.7	6.7										
11		0.513391	129.0	2.5	90	6.7	6.7										
12		0.973080	270.9	5.4	82	6.6	6.7										
13	613.3830	1.303752	356.9	9.8	86	6.7	6.9										
14	609.6345	1.560054	399.9	10.5	85	6.7	6.9										
15	612.2618	1.490690	369.8	10.4	87	6.6	6.8	39.9	494.6	110.7	1372.3	12.4	153.7	69.0	855.4	39.7	
16	615.2848	1.491643	430.0	10.3	84	6.7	6.7					13.6	168.7	61.0	756.7		
17	614.9005	1.307206	348.3	9.0	84	6.7	6.7										
18		0.448052	111.8	2.6	91	6.5	6.7										
19		0.239575	38.7	0.7	80	6.7	6.7										
20	SHUT DOWN	0.210287	60.2	0.8	82	6.7	6.7										
21	SHUT DOWN	0.191178	25.8	0.9	79	6.7	6.7										
22	SHUT DOWN	0.197206	25.8	0.6	80	6.7	6.7										
23	SHUT DOWN	0.176535	8.6	0.6	82	6.5	6.5										
24	SHUT DOWN	0.128539															
25	SHUT DOWN	0.145792			84	6.7	6.7										
26	SHUT DOWN	0.190603	38.7	2.2	83	6.5	6.7										
27	SHUT DOWN	0.207779	51.6	0.8	86	6.5	6.7										
28	SHUT DOWN	0.296596	34.4	1.5	86	6.6	6.7										
29	SHUT DOWN	0.262262	12.9	0.5	84	6.7	6.8										
30	SHUT DOWN	0.196309	55.9	1.2	80	6.7	6.7										
31	SHUT DOWN	0.276759	47.3	0.9	80	6.7	6.8										
TOT	7965.5425	24.042644	6484.4	161.1					1099.8		5363.0		943.7		5392.8		
AVG	612.7340	0.775569	223.6	5.6	85			30.0	366.6	146.9	1787.7	13.1	157.3	74.8	898.8	40.2	417.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	12	01		2004	12	31

(20-21)

(22-23)


(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	AVERAGE	MAXIMUM							
FLOW	SAMPLE MEASUREMENT	0.775569	1.560054	mgd					0	Continuous	Recorder			
	PERMIT REQUIREMENT		2.9							"	"			
BOD5	SAMPLE MEASUREMENT				417.0	417.0	417.0	mg/l	0	Once/Month	Composite			
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"			
TSS	SAMPLE MEASUREMENT	1787.7	3125.8	lbs/day	72.0	146.9	258.0	mg/l	0	Once/Week	Composite			
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"			
OIL & GREASE	SAMPLE MEASUREMENT	366.6	530.7	lbs/ day	6.2	30.0	43.8	mg/l	0	Once/Week	Grab (2)			
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "			
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	157.3	168.7	lbs/day	12.4	13.1	13.6	mg/l	0	One Set/Month (3)	Composite			
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"			
TOTAL NITROGEN	SAMPLE MEASUREMENT	898.8	1017.7	lbs/day	61.0	74.8	84.0	mg/l	0	One Set/Month (3)	Composite			
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"			
TOTAL AMMONIA	SAMPLE MEASUREMENT				36.2	40.2	44.7	mg/l	0	Once/Week	Composite			
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"			
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE		
LANCE IHAKA Manager, Engineering and Maintenance														
TYPE OR PRINTED								SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

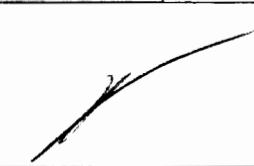
MONITORING PERIOD

YEAR	MO	DAY		YEAR	MO	DAY
2004	12	01	TO	2004	12	31

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					85	93		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.5		6.9		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					15.0	15.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					242.0	242.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	<p>I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)</p>		TELEPHONE		DATE	
<p>LANCE IHAKA</p> <p>Manager, Engineering and Maintenance</p> <p>TYPE OR PRINTED</p>			AREA CODE	NUMBER	YEAR	MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)



April 27, 2005

A Division of StarKist Foods
P.O. Box 358
Pago Pago, Tutuila, Samoa
American Samoa 96799
Telephone: 684-633-1111
Facsimile: 684-633-1112

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of January, February and March of 2005,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2005.

Star Kist Samoa met all Effluent limits except for the Total Zinc.

The Total Zinc exceeded the Daily Maximum and the 30-Day Average limits for the month of January 2005.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION



MONITORING PERIOD

FROM

TO

YEAR	MO	DAY	YEAR	MO	DAY
2005	01	01	2005	01	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
		(46-53) (54-61)		UNITS	(38-45) (46-53) (54-61)										
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS							
FLOW	SAMPLE MEASUREMENT	1.217294	1.629668	mgd					0	Continuous	Recorder				
	PERMIT REQUIREMENT		2.9								"	"			
BOD5	SAMPLE MEASUREMENT				375.1	375.1	375.1	mg/l	0	Once/Month	Composite				
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"				
TSS	SAMPLE MEASUREMENT	1659.8	1875.7	lbs/day	106.7	138.7	158.0	mg/l	0	Once/Week	Composite				
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"				
OIL & GREASE	SAMPLE MEASUREMENT	405.6	713.5	lbs/ day	11.8	33.9	60.1	mg/l	0	Once/Week	Grab (2)				
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "				
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	144.3	175.1	lbs/day	7.9	12.0	15.2	mg/l	0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"				
TOTAL NITROGEN	SAMPLE MEASUREMENT	814.9	1031.8	lbs/day	43.0	67.9	85.0	mg/l	0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"				
TOTAL AMMONIA	SAMPLE MEASUREMENT				18.4	27.5	43.1	mg/l	0	Once/Week	Composite				
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"				
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE				DATE			
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED								 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				AREA CODE		NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

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PERMIT NUMBER

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DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:


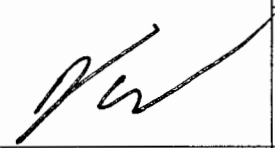
MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2005	01	01	2005	01	31

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)							
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS						
TEMPERATURE	SAMPLE MEASUREMENT					85	91		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95	° F		"	"			
pH	SAMPLE MEASUREMENT				6.5		7.1		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"			
TOTAL COPPER	SAMPLE MEASUREMENT					ND	ND		0	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L		"	"			
TOTAL ZINC	SAMPLE MEASUREMENT					2650.0	2650.0		1	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"			
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE		
 LANCE IHAKA Manager, Engineering and Maintenance														
TYPE OR PRINTED									SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			AREA CODE NUMBER YEAR MO DAY		

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of January 2005

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		0.278922	81.7	0.9	83	6.5	6.7										
2		0.775108	197.8	3.9	85	6.7	6.7										
3	557.2800	1.253489	270.9	8.7	83	6.6	6.8										
4	532.6008	1.427580	305.3	8.4	83	6.7	6.9	60.1	713.5	158.0	1875.7	12.8	152.0	53.0	629.2	28.7	
5	583.4735	1.431084	344.0	8.5	85	6.6	6.7					14.6	173.8	78.0	928.3		
6	605.0485	1.550337	421.4	8.5	86	6.7	6.7										
7	599.1893	1.397563	382.7	6.5	84	6.7	6.8										
8		0.781913	197.8	2.8	86	6.7	6.7										
9		0.693666	184.9	2.4	85	6.7	6.8										
10	603.1910	1.252648	365.5	6.5	84	6.7	6.9										
11	596.0980	1.382392	309.6	7.5	82	6.7	6.7										
12	565.5468	1.385361	356.9	6.9	89	6.7	6.8	35.9	413.6	142.0	1635.9	15.2	175.1	82.0	944.7	43.1	
13	590.3975	1.371158	322.5	7.2	86	6.6	7.0					13.8	157.4	64.0	729.8		
14	579.7310	1.342771	352.6	7.1	89	6.7	6.7										
15		0.581099	180.6	2.7	86	6.7	6.7										
16		0.874089	129.0	3.4	84	6.7	6.9										
17	611.0308	1.525342	361.2	8.3	86	6.7	6.9										
18	559.1000	1.414421	541.8	9.3	82	6.7	6.9										
19	568.6908	1.481516	305.3	8.9	86	6.7	7.0	28.5	351.1	148.0	1823.4	11.7	144.2	64.0	788.5	18.4	
20	593.4555	1.528492	425.7	11.3	86	6.6	6.9					11.1	141.1	74.0	940.6		375.1
21	574.9550	1.473795	339.7	15.4	85	6.7	6.9										
22	524.5850	1.535471	438.6	14.5	86	6.6	7.1										
23		0.983208	236.5	8.8	87	6.7	6.7										
24	481.5155	1.629668	335.4	15.2	85	6.7	6.7										
25	459.1985	1.470691	503.1	16.6	86	6.7	6.9	11.8	144.3	106.7	1305.0	7.9	96.6	43.0	525.9	19.7	
26	473.4810	1.459738	541.8	14.3	86	6.7	6.9					9.4	114.1	85.0	1031.8		
27	470.8665	1.508539	399.9	15.9	87	6.7	7.0										
28	620.0353	1.370070	331.1	13.9	91	6.7	7.1										
29		0.522368	193.5	6.1	84	6.7	6.8										
30		0.694551	215.0	6.1	82	6.7	6.7										
31	583.4260	1.359057	258.0	11.0	87	6.7	6.9										
TOT	12332.8963	37.736107	9829.8	267.5					1622.9		6639.1		1154.3		6518.8		
AVG	560.5860	1.217294	317.1	8.6	85			33.9	405.6	138.7	1659.8	12.0	144.3	67.9	814.9	27.5	375.1

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2005	02	01		2005	02	28

(20-21)

(22-23)


(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS				
FLOW	SAMPLE MEASUREMENT	0.914996	1.848557	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9							"	"	
BOD5	SAMPLE MEASUREMENT				344.2	344.2	344.2		0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		" "	"	
TSS	SAMPLE MEASUREMENT	1239.0	1483.7	lbs/day	78.0	98.0	126.7		0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A	mg/l		" "	"	
OIL & GREASE	SAMPLE MEASUREMENT	296.3	700.3	lbs/ day	4.9	24.8	59.8		0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A	mg/l		" "	" "	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	135.7	153.7	lbs/day	9.9	10.7	11.5		0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A	mg/l		" "	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	284.8	408.1	lbs/day	12.0	23.0	37.0		0	One Set/Month (3)		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A	mg/l		" "	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				13.8	21.1	25.5		0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE DATE				
 LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT						AREA CODE	NUMBER	YEAR	MO DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)
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Form Approved

OMB No. 2040-0004

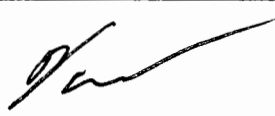

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	2005	02	01		2005	02	28

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
TEMPERATURE	SAMPLE MEASUREMENT					85	94		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95	° F		"	"			
pH	SAMPLE MEASUREMENT				6.7		7.1		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"			
TOTAL COPPER	SAMPLE MEASUREMENT					10.0	10.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L		" "	"			
TOTAL ZINC	SAMPLE MEASUREMENT					173.0	173.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"			
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)				TELEPHONE		DATE	
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED		 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				AREA CODE NUMBER		YEAR MO DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of February 2005

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	591.2128	1.697495	348.3	13.4	82	6.7	6.9										
2	578.8225	1.751439	408.5	14.8	85	6.7	6.8	4.9	71.4	89.3	1300.7	9.9	144.2	14.0	203.9	25.5	
3	586.5510	1.848557	365.5	12.7	86	6.7	6.8					10.0	153.7	19.0	292.1		
4	562.7283	1.487788	348.3	14.2	86	6.7	6.8										
5		0.587036	129.0	4.3	87	6.7	6.7										
6		0.302955	107.5	1.9	84	6.7	6.7										
7	SHUT DOWN	0.198754	60.2	2.1	89	6.7	6.7										
8	SHUT DOWN	0.274173	51.6	0.6	81	6.6	6.7										
9	SHUT DOWN	0.191826	73.1	1.7	84	6.7	6.7										
10	SHUT DOWN	0.250883	25.8	0.6	82	6.7	6.7										
11	SHUT DOWN	0.200675	60.2	2.0	80	7.1	7.1										
12	SHUT DOWN	0.405889	137.6	2.8	83	6.7	6.7										
13		0.834410	137.6	5.9	81	6.7	6.8										
14	589.3863	1.211390	283.8	10.8	84	6.7	7.1										
15		0.317341	81.7	1.8	85	6.7	6.7										
16		0.137177	81.7	1.9	81	6.7	6.7										
17		0.773255	236.5	7.0	82	6.7	6.7										
18	602.3428	1.408184	378.4	9.7	84	6.7	6.9	59.8	700.3	126.7	1483.7	11.2	131.2	27.0	316.2	13.8	
19	582.8113	1.326327	365.5	11.2	86	6.7	6.9					11.5	126.9	37.0	408.1		
20		0.567104	129.0	3.9	94	6.7	7.0										
21		0.759936	202.1	6.4	85	6.7	6.8										
22	590.1088	1.334580	335.4	10.9	87	6.7	6.9										
23	589.0223	1.603466	356.9	12.8	88	6.7	6.9										
24	576.9828	1.437726	412.8	13.0	88	6.7	6.9	9.8	117.2	78.0	932.6	11.4	136.3	29.0	346.7	24.1	344.2
25	551.8790	1.420507	498.8	14.3	88	6.7	6.9					10.3	121.7	12.0	141.8		
26	575.6465	1.244615	468.7	12.0	89	6.7	6.7										
27		0.903958	249.4	8.1	88	6.7	6.8										
28	563.7820	1.142452	331.1	9.2	88	6.7	7.1										
TOT	7541.2764	25.619898	6665	176					888.9		3717.0		814.0		1708.8		
AVG	580.0982	0.914996	238	7.5	85			24.8	296.3	98.0	1239.0	10.7	135.7	23.0	284.8	21.1	344.2

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS0000019
PERMIT NUMBER

(17-19)
001
DISCHARGE NUMBER



FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2005	03	01	FROM	2005	03	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	AVERAGE	MAXIMUM							
FLOW	SAMPLE MEASUREMENT	1.210035	1.681876	mgd					0	Continuous	Recorder			
	PERMIT REQUIREMENT		2.9							"	"			
BOD5	SAMPLE MEASUREMENT				319.0	319.0	319.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"			
TSS	SAMPLE MEASUREMENT	1163.8	1556.7	lbs/day	66.7	92.4	120.7		0	Once/Week	Composite			
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"			
OIL & GREASE	SAMPLE MEASUREMENT	215.9	495.1	lbs/ day	4.6	16.7	35.4		0	Once/Week	Grab (2)			
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "			
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	138.3	166.1	lbs/day	9.7	11.1	13.6		0	One Set/Month (3)	Composite			
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"			
TOTAL NITROGEN	SAMPLE MEASUREMENT	810.0	1067.4	lbs/day	16.0	65.1	84.0		0	One Set/Month (3)	Composite			
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"			
TOTAL AMMONIA	SAMPLE MEASUREMENT				19.7	26.6	32.6		0	Once/Week	Composite			
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"			

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER  LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE	
			AREA CODE	NUMBER	YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM:

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2005	03	01	2005	03	31

(20-21)

(22-23)

(24-25)


(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					86	94		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.6		7.4		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					10.0	10.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					276.0	276.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)		TELEPHONE DATE			
			AREA CODE	NUMBER	YEAR	MO DAY

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of March 2005

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	582.9538	1.388126	430.0	12.0	90	6.7	6.8										
2	599.8428	1.455979	438.6	14.1	87	6.7	6.9	19.8	239.7	66.7	808.6	9.7	117.4	16.0	193.7	26.1	
3	576.3218	1.491550	464.4	13.9	87	6.7	6.9					11.4	141.4	25.0	310.1		
4	595.3400	1.400997	399.9	10.1	91	6.7	6.8										
5		0.497137	227.9	4.3	84	6.7	6.8										
6		0.685252	210.7	5.0	83	6.7	6.7										
7	602.5268	1.277701	344.0	9.9	87	6.6	6.7										
8	602.4293	1.518378	425.7	12.6	89	6.7	6.7										
9	591.9420	1.527978	391.3	15.8	90	6.7	6.9	6.9	87.7	70.0	889.5	10.0	127.1	84.0	1067.4	25.9	
10	583.6498	1.570299	356.9	14.9	88	6.7	7.0					11.0	143.6	81.0	1057.7		
11	581.0620	1.499723	335.4	12.5	89	6.7	6.8										
12		0.560780	150.5	4.7	90	6.7	6.8										
13		0.745717	270.9	6.1	86	6.7	6.7										
14	587.7953	1.380869	490.2	14.4	83	6.7	6.8										
15	563.7240	1.453376	425.7	14.7	87	6.7	6.8										
16	587.8870	1.467064	391.3	14.3	89	6.7	6.8	4.6	56.1	93.3	1138.3	11.9	145.2	82.0	1000.4	28.7	319.0
17	590.6963	1.452379	404.2	16.2	88	6.7	6.8										
18	580.0195	1.349416	374.1	14.8	94	6.7	6.8					11.2	125.7	78.8	884.3		
19		0.657945	172.0	5.4	84	6.7	6.8										
20		0.763355	180.6	6.5	80	6.7	6.9										
21	613.3155	1.299951	331.1	12.4	88	6.7	6.9										
22	591.2328	1.681876	404.2	13.3	88	6.7	7.0	35.4	495.1	111.3	1556.7	11.9	166.1	75.0	1049.0	19.7	
23	610.4705	1.537061	387.0	12.3	88	6.8	7.0					10.5	134.2	66.0	843.6		
24	606.8343	1.245867	292.4	8.1	92	6.8	6.9										
25		0.580933	120.4	3.2	80	6.8	6.9										
26		0.323024	38.7	1.1	80	6.7	6.7										
27		0.709757	193.5	5.6	82	6.7	6.9										
28	587.8130	1.628239	399.9	12.0	81	6.7	7.2										
29	568.7043	1.420456	421.4	11.7	81	6.7	7.4	17.0	200.8	120.7	1425.8	13.6	160.7	83.0	980.4	32.6	
30	570.3583	1.429869	451.5	12.9	81	6.7	6.9					10.2	121.2	60.0	713.4		
31	601.5560	1.510019	434.3	12.6	82	6.8	7.0										
TOT	12976.4751	37.511073	10358.7	327.4					1079.4		5818.9		1382.6		8100.0		
AVG	589.8398	1.210035	334.2	10.6	86			16.7	215.9	92.4	1163.8	11.1	138.3	65.1	810.0	26.6	319.0

American Samoa Joint Cannery Outfall

COS Samoa Packing StarKist Samoa

ANALYSIS OF PROPOSED NPDES PERMIT CONDITIONS

The discussions below describe the differences between the existing NPDES permit and the rationale for proposing these changes. Many of the proposed sections are based on informal discussions with EPA staff. The technical justifications are based on the results of the studies done under the existing permit.

Proposed Section A (Existing Section A): **EFFLUENT LIMITS AND MONITORING REQUIREMENTS**

Discharge limitations will be based on permit application data and discussions with EPA. Numerical limits are not included in the proposed permit conditions at this time. Proposed monitoring frequencies are discussed below.

BOD₅ monitoring is reduced to monthly, since a large database has been established. Based on the existing data EPA may decide to institute a numerical limitation or drop the monitoring. There is a dissolved oxygen (DO) water quality standard, which argues for a limitation, or at least monitoring. There have been no violations of this standard, which argues for dropping the monitoring and relying on the receiving water monitoring. Initial dilutions of over 100:1 result in little chance of violations.

Suspended solids and oil & grease monitoring is reduced to weekly from twice per week. This is based on the established database. EPA may be reluctant to do this, but it appears reasonable.

Total ammonia is maintained at weekly monitoring. Any observed toxicity in the effluent would most likely be caused by ammonia. Thus, reductions in ammonia monitoring are unlikely.

Total phosphorous and total nitrogen monitoring is reduced to one set of samples (two in a given week) per month. The receiving water monitoring indicates no violations, even within the mixing zone. However, the option for additional monitoring is allowed (as always) to address potential daily spikes that, although below the daily maximum limitation, would unduly bias the monthly average limitation. The potential shift to a weighted-average approach is retained, although it was not instituted in the existing report. This point requires further consideration.

Zinc and copper monitoring is proposed to be monthly. This is based on the database that has been established. Copper was added to the list. Zinc was increased from semi-annual to monthly. Both of these parameters will require mixing zones, and monthly monitoring appears reasonable.

Cadmium, chromium, lead, and mercury monitoring is dropped. There were no limitations for these metals and monitoring was to determine if limitations are required. Based on the data, the effluent has been in compliance for these parameters.

It may be that the dissolved fraction of metals, rather than the total should be monitored in the future. This needs to be clarified with EPA.

Proposed Section B (Existing Section B):
DISCHARGE SPECIFICATIONS

This section was revised only to eliminate monitoring station 17 for reasons described in detail in Section E below. The location of this station adjacent to the closest coral reef to the discharge argues against removing it. However, monitoring at other nearby stations, and the ability of ASEPA or EPA to restore this station if any concerns arise, argue that it is unnecessary. This station is particularly difficult to sample in a safe fashion because of its location next to a reef that is relatively well exposed to ocean waves. Safety considerations argue against retaining it since the existing data shows no potential for non-compliance.

Proposed Section C (Existing Section C):
PROTECTED AND PROHIBITED USES

This section remains the same, unless there are changes in the American Samoa water Quality Standards (ASWQS) that need to be reflected here by EPA.

Proposed Section D (Existing Section D):
TOXICITY

1. Effluent Biomonitoring. A number of changes were made to this section to reflect the current procedures that have been previously approved by EPA. These include:

The starting date was extended (90 to 180 days) to keep the current series of test in sequence with future tests regardless of the start date of the permit.

The reference to the guidance document was updated.

The previously approved substitute species was included.

The dilution range was made more general to be consistent with current practice.

The relaxation of holding times and sample preservation was recognized to reflect the logistics encountered in American Samoa.

The use of a single composite sample was formalized to be consistent with current practice.

EPA and ASEPA should have no problems with these changes, since they have already been approved. The statistical methods required need to be reviewed more carefully to make sure they are consistent with what is actually being reported.

2. Priority Pollutant Scan. The requirements for chemical analysis have been relaxed to require a minimum of a single scan for permit renewal. The justification is based on the existing database and information available.
3. Toxicity Reopener. This remains the same as in the existing permit.

Proposed Section E (Existing Section E):
RECEIVING WATER QUALITY MONITORING PROGRAM

The major change in this section is a reduction in the number of stations and depths to be sampled. The required stations are clustered around the discharge, with reference stations inside and outside the harbor. This is fully justified based on the previous data collected. Some monitoring will be required to verify compliance since there is a mixing zone for nutrients. However, there have been no measurements indicating non-compliance with (ASWQS) in the last four or five sampling campaigns conducted by CH2M HILL. A substantial reduction in stations is reasonable. The stations listed in the proposed conditions maintain critical historical stations in the inner harbor and transition zone. ASEPA and EPA retain the ability to increase the monitoring if the situation changes.

The latitude and longitude need to be verified and included (there were some errors in the existing permit, which were corrected).

The navigation and location language has been modified to be somewhat more flexible. Sampling is done from a small boat and maintaining station within 6 meters, as specified in the existing permit, is easy in the interior portion of the harbor, but impossible outside the harbor (Station 5). The positioning system currently being used and reported appears to be acceptable and is certainly technically defensible.

The list of parameters remains essentially the same as in the existing permit. However, the measurement of pH, suspended solids, and light penetration seem unnecessary or redundant and should be reconsidered. Further discussion with EPA should be initiated to discuss these parameters. However, they remain in the proposed conditions since the added effort and expense is relatively small.

A one time expanded survey is required as a part of a more comprehensive water quality survey desired by EPA (see Section H).

(Existing Section E):

DYE OR TRACER STUDIES

Two dye studies were previously done that fully validated the initial dilution and mixing zone models used. There is no need to repeat these studies and the requirement is eliminated.

Proposed Section F (Existing Section G): SEDIMENT MONITORING

The previous studies have shown no impact of the new outfall and only a very slow change in the inner harbor near the old outfalls. Therefore, the frequency of the monitoring has been reduced. This is supported by the previous results.

A one-time expanded survey is required as a part of a more comprehensive water quality survey desired by EPA (see Section H).

(Existing Section H): EUTROPHICATION STUDIES

The previous study as well as the water quality monitoring has shown no problems with excess nutrients stimulating undesirable phytoplankton growth. ASWQS for nutrients and chlorophyll-a are met throughout the harbor. There is no need to repeat these studies and the requirement is eliminated.

Proposed Section G (Existing Section I): CORAL REEF SURVEY

The previous studies have shown no coral reef degradation attributable to the discharge, or within the harbor as a whole. There are, in fact, indications of overall improvement. There are some observable problems in localized areas that are attributable to runoff and sediment loads from the watershed. It is unlikely that EPA would eliminate this monitoring entirely. The proposed study is less frequent, since the observed changes are very slow. The proposed study monitors only a subset of stations (about 25 percent of the full set) around the discharge. These stations were selected to be close to the discharge and representative examples in the middle and outer harbor.

(Existing Section J): VERIFICATION OF MODELING PREDICTIONS

The previous study, as well as the water quality monitoring and dye studies, have clearly demonstrated that the initial model simulations were conservative (predicted higher nutrient concentrations than actually observed). There is no need to repeat these studies and the requirement is eliminated.

Proposed Section H (No Existing Section):
FISH TISSUE STUDY

This is a new study. It is a one-time study to pull of the various water quality monitoring together and assess potential environmental impacts. It is prudent for the canneries to carry out such a study. If done as proposed, concurrently with water quality and sediment monitoring, the additional cost is minimized. The cost savings on reducing or eliminating other studies is substantially greater than the marginal cost of this study. It also provides the canneries the opportunity to have technical input, participate and supervise this work.

(Existing Section K):
WASTEWATER TREATMENT SYSTEM EVALUATION

This study was required in the existing permit. It was carried out and resulted in improvements. There is no need to re-do this study at this time and it was dropped from the proposed conditions. However, EPA may believe it is prudent to repeat the study or at least do a summary evaluation of current systems or status (a low-level effort).

(Existing Section L):
POLLUTION PREVENTION PROGRAM

This study was required in the existing permit. It was carried out and resulted in improvements. There is no need to re-do this study at this time and it was dropped from the proposed conditions. However, EPA may believe it is prudent evaluate the ongoing status of the program (low level effort).

Proposed Section I (Existing Section M):
DEFINITIONS

This section remains identical to the existing Section M permit language, unless it needs to be update to reflect current EPA practice.

Proposed Section J (Existing Section N):

QUALITY ASSURANCE / QUALITY CONTROL

This section remains identical to the existing Section N permit language, unless it needs to be update to reflect current EPA practice.

**Proposed Section K (Existing Section O):
REPORTING**

This section remains identical to the existing Section O permit language, unless it needs to be update to reflect current EPA practice.

**Proposed Section L (Existing Section P):
EPA REGION IX STANDARD CONDITIONS**

This section remains identical to the existing Section P permit language, unless it needs to be update to reflect current EPA practice.

StarKist Samoa, Inc.



April 27, 2005

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Pro
75 Hawthorne Street
San Francisco, CA 9410

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American

Gentlemen :

Re : Discharge Monitoring Report for the Months of January, February and March of 2005,
under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa
January, February and March of 2005.

Star Kist Samoa met all Effluent

The Total Zinc exceeded the I
January 2005.

Carl,
8/10/05
I found these DMRs
interweaved in my files. Any
missing DMRs may have been
recycled or not received by me(?).
↳ I think I may have looked at
dates and recycled duplicates by
mistake.
Alan

PS - I will look at these
more carefully, and if I see
DMRs, I'll drop them off.
ayQ.

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

StarKist Samoa, Inc.



April 27, 2005

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of January, February and March of 2005, under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2005.

Star Kist Samoa met all Effluent limits except for the Total Zinc.

The Total Zinc exceeded the Daily Maximum and the 30-Day Average limits for the month of January 2005.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD



FROM

YEAR MO DAY
2005 01 01

TO

YEAR MO DAY
2005 01 31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		(46-53)		(54-61)	(38-45)		(46-53)					(54-61)
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS				
FLOW	SAMPLE MEASUREMENT	1.217294	1.629668	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9								"	"
BOD5	SAMPLE MEASUREMENT			mg/l	375.1	375.1	375.1		0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"	
TSS	SAMPLE MEASUREMENT	1659.8	1875.7	lbs/day	106.7	138.7	158.0		0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"	
OIL & GREASE	SAMPLE MEASUREMENT	405.6	713.5	lbs/ day	11.8	33.9	60.1		0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	144.3	175.1	lbs/day	7.9	12.0	15.2		0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	814.9	1031.8	lbs/day	43.0	67.9	85.0		0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT			mg/l	18.4	27.5	43.1		0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE			
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED									 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

FACILITY:

LOCATION:

MONITORING PERIOD

FROM

YEAR	MO	DAY	TO	YEAR	MO	DAY
2005	01	01		2005	01	31

(20-21)

(22-23)

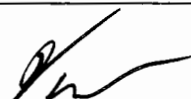
(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					85	91		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.5		7.1		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					ND	ND		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		"	"
TOTAL ZINC	SAMPLE MEASUREMENT					2650.0	2650.0		1	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE		
 LANCE IHAKA Manager, Engineering and Maintenance											
TYPE OR PRINTED									DATE		

Wastewater Summary Report for the month of January 2005

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		0.278922	81.7	0.9	83	6.5	6.7										
2		0.775108	197.8	3.9	85	6.7	6.7										
3	557.2800	1.253489	270.9	8.7	83	6.6	6.8										
4	532.6008	1.427580	305.3	8.4	83	6.7	6.9	60.1	713.5	158.0	1875.7	12.8	152.0	53.0	629.2	28.7	
5	583.4735	1.431084	344.0	8.5	85	6.6	6.7					14.6	173.8	78.0	928.3		
6	605.0485	1.550337	421.4	8.5	86	6.7	6.7										
7	599.1893	1.397563	382.7	6.5	84	6.7	6.8										
8		0.781913	197.8	2.8	86	6.7	6.7										
9		0.693666	184.9	2.4	85	6.7	6.8										
10	603.1910	1.252648	365.5	6.5	84	6.7	6.9										
11	596.0980	1.382392	309.6	7.5	82	6.7	6.7										
12	565.5468	1.385361	356.9	6.9	89	6.7	6.8	35.9	413.6	142.0	1635.9	15.2	175.1	82.0	944.7	43.1	
13	590.3975	1.371158	322.5	7.2	86	6.6	7.0					13.8	157.4	64.0	729.8		
14	579.7310	1.342771	352.6	7.1	89	6.7	6.7										
15		0.581099	180.6	2.7	86	6.7	6.7										
16		0.874089	129.0	3.4	84	6.7	6.9										
17	611.0308	1.525342	361.2	8.3	86	6.7	6.9										
18	559.1000	1.414421	541.8	9.3	82	6.7	6.9										
19	568.6908	1.481516	305.3	8.9	86	6.7	7.0	28.5	351.1	148.0	1823.4	11.7	144.2	64.0	788.5	18.4	
20	593.4555	1.528492	425.7	11.3	86	6.6	6.9					11.1	141.1	74.0	940.6		375.1
21	574.9550	1.473795	339.7	15.4	85	6.7	6.9										
22	524.5850	1.535471	438.6	14.5	86	6.6	7.1										
23		0.983208	236.5	8.8	87	6.7	6.7										
24	481.5155	1.629668	335.4	15.2	85	6.7	6.7										
25	459.1985	1.470691	503.1	16.6	86	6.7	6.9	11.8	144.3	106.7	1305.0	7.9	96.6	43.0	525.9	19.7	
26	473.4810	1.459738	541.8	14.3	86	6.7	6.9					9.4	114.1	85.0	1031.8		
27	470.8665	1.508539	399.9	15.9	87	6.7	7.0										
28	620.0353	1.370070	331.1	13.9	91	6.7	7.1										
29		0.522368	193.5	6.1	84	6.7	6.8										
30		0.694551	215.0	6.1	82	6.7	6.7										
31	583.4260	1.359057	258.0	11.0	87	6.7	6.9										
TOT	12332.8963	37.736107	9829.8	267.5					1622.9		6639.1		1154.3		6518.8		
AVG	560.5860	1.217294	317.1	8.6	85			33.9	405.6	138.7	1659.8	12.0	144.3	67.9	814.9	27.5	375.1

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER


FACILITY

LOCATION

FROM

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2005	02	01	TO	2005	02	28
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)											
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS														
FLOW	SAMPLE MEASUREMENT	0.914996	1.848557	mgd					0	Continuous	Recorder											
	PERMIT REQUIREMENT		2.9							"	"											
BOD5	SAMPLE MEASUREMENT				344.2	344.2	344.2	mg/l	0	Once/Month	Composite											
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"											
TSS	SAMPLE MEASUREMENT	1239.0	1483.7	lbs/day	78.0	98.0	126.7	mg/l	0	Once/Week	Composite											
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"											
OIL & GREASE	SAMPLE MEASUREMENT	296.3	700.3	lbs/ day	4.9	24.8	59.8	mg/l	0	Once/Week	Grab (2)											
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "											
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	135.7	153.7	lbs/day	9.9	10.7	11.5	mg/l	0	One Set/Month (3)	Composite											
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"											
TOTAL NITROGEN	SAMPLE MEASUREMENT	284.8	408.1	lbs/day	12.0	23.0	37.0	mg/l	0	One Set/Month (3)												
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"											
TOTAL AMMONIA	SAMPLE MEASUREMENT				13.8	21.1	25.5	mg/l	0	Once/Week	Composite											
	PERMIT REQUIREMENT				N/A	N/A	133			"	"											
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE DATE														
 LANCE IHAKA Manager, Engineering and Maintenance																						
TYPE OR PRINTED																						
COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT						AREA CODE NUMBER	YEAR	MO	DAY											

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2005	02	01	TO	2005	02	28

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS			
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM				
TEMPERATURE	SAMPLE MEASUREMENT					85	94	° F	0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95			"	"
pH	SAMPLE MEASUREMENT				6.7		7.1	STD/UNITS	0	Continuous	Continuous
	PERMIT REQUIREMENT					6.5			8.6		"
TOTAL COPPER	SAMPLE MEASUREMENT					10.0	10.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108			" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					173.0	173.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770			" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)

TELEPHONE

DATE

LANCE IHAKA

Manager, Engineering and Maintenance

TYPE OR PRINTED

SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

AREA

CODE NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of February 2005

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits		Oil & Grease		TSS		TP		TN		Total Ammonia Eff mg/l	BOD Eff mg/l
						Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day		
1	591.2128	1.697495	348.3	13.4	82	6.7	6.9										
2	578.8225	1.751439	408.5	14.8	85	6.7	6.8	4.9	71.4	89.3	1300.7	9.9	144.2	14.0	203.9	25.5	
3	586.5510	1.848557	365.5	12.7	86	6.7	6.8					10.0	153.7	19.0	292.1		
4	562.7283	1.487788	348.3	14.2	86	6.7	6.8										
5		0.587036	129.0	4.3	87	6.7	6.7										
6		0.302955	107.5	1.9	84	6.7	6.7										
7	SHUT DOWN	0.198754	60.2	2.1	89	6.7	6.7										
8	SHUT DOWN	0.274173	51.6	0.6	81	6.6	6.7										
9	SHUT DOWN	0.191826	73.1	1.7	84	6.7	6.7										
10	SHUT DOWN	0.250883	25.8	0.6	82	6.7	6.7										
11	SHUT DOWN	0.200675	60.2	2.0	80	7.1	7.1										
12	SHUT DOWN	0.405889	137.6	2.8	83	6.7	6.7										
13		0.834410	137.6	5.9	81	6.7	6.8										
14	589.3863	1.211390	283.8	10.8	84	6.7	7.1										
15		0.317341	81.7	1.8	85	6.7	6.7										
16		0.137177	81.7	1.9	81	6.7	6.7										
17		0.773255	236.5	7.0	82	6.7	6.7										
18	602.3428	1.408184	378.4	9.7	84	6.7	6.9	59.8	700.3	126.7	1483.7	11.2	131.2	27.0	316.2	13.8	
19	582.8113	1.326327	365.5	11.2	86	6.7	6.9					11.5	126.9	37.0	408.1		
20		0.567104	129.0	3.9	94	6.7	7.0										
21		0.759936	202.1	6.4	85	6.7	6.8										
22	590.1088	1.334580	335.4	10.9	87	6.7	6.9										
23	589.0223	1.603466	356.9	12.8	88	6.7	6.9										
24	576.9828	1.437726	412.8	13.0	88	6.7	6.9	9.8	117.2	78.0	932.6	11.4	136.3	29.0	346.7	24.1	344.2
25	551.8790	1.420507	498.8	14.3	88	6.7	6.9					10.3	121.7	12.0	141.8		
26	575.6465	1.244615	468.7	12.0	89	6.7	6.7										
27		0.903958	249.4	8.1	88	6.7	6.8										
28	563.7820	1.142452	331.1	9.2	88	6.7	7.1										
TOT	7541.2764	25.619898	6665	176					888.9		3717.0		814.0		1708.8		
AVG	580.0982	0.914996	238	7.5	85			24.8	296.3	98.0	1239.0	10.7	135.7	23.0	284.8	21.1	344.2

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM

YEAR MO DAY
2005 03 01



TO

YEAR MO DAY
2005 03 31

(20-21) (22-23) (24-25)

(26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)					
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS					
FLOW	SAMPLE MEASUREMENT	1.210035	1.681876	mgd					0	Continuous	Recorder		
	PERMIT REQUIREMENT		2.9								"	"	
BOD5	SAMPLE MEASUREMENT				319.0	319.0	319.0	mg/l	0	Once/Month	Composite		
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"	"	
TSS	SAMPLE MEASUREMENT	1163.8	1556.7	lbs/day	66.7	92.4	120.7	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"	"	
OIL & GREASE	SAMPLE MEASUREMENT	215.9	495.1	lbs/ day	4.6	16.7	35.4	mg/l	0	Once/Week	Grab (2)		
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"	" "	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	138.3	166.1	lbs/day	9.7	11.1	13.6	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	810.0	1067.4	lbs/day	16.0	65.1	84.0	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				19.7	26.6	32.6	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT				N/A	N/A	133			"	"	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)					TELEPHONE DATE						
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED							 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT					AREA CODE NUMBER YEAR MO DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION



FROM:

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2005	03	01		2005	03	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)			
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					86	94		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.6		7.4		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					10.0	10.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					276.0	276.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE		
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED			AREA CODE	NUMBER	YEAR	MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of March 2005

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	582.9538	1.388126	430.0	12.0	90	6.7	6.8										
2	599.8428	1.455979	438.6	14.1	87	6.7	6.9	19.8	239.7	66.7	808.6	9.7	117.4	16.0	193.7	26.1	
3	576.3218	1.491550	464.4	13.9	87	6.7	6.9					11.4	141.4	25.0	310.1		
4	595.3400	1.400997	399.9	10.1	91	6.7	6.8										
5		0.497137	227.9	4.3	84	6.7	6.8										
6		0.685252	210.7	5.0	83	6.7	6.7										
7	602.5268	1.277701	344.0	9.9	87	6.6	6.7										
8	602.4293	1.518378	425.7	12.6	89	6.7	6.7										
9	591.9420	1.527978	391.3	15.8	90	6.7	6.9	6.9	87.7	70.0	889.5	10.0	127.1	84.0	1067.4	25.9	
10	583.6498	1.570299	356.9	14.9	88	6.7	7.0					11.0	143.6	81.0	1057.7		
11	581.0620	1.499723	335.4	12.5	89	6.7	6.8										
12		0.560780	150.5	4.7	90	6.7	6.8										
13		0.745717	270.9	6.1	86	6.7	6.7										
14	587.7953	1.380869	490.2	14.4	83	6.7	6.8										
15	563.7240	1.453376	425.7	14.7	87	6.7	6.8										
16	587.8870	1.467064	391.3	14.3	89	6.7	6.8	4.6	56.1	93.3	1138.3	11.9	145.2	82.0	1000.4	28.7	319.0
17	590.6963	1.452379	404.2	16.2	88	6.7	6.8										
18	580.0195	1.349416	374.1	14.8	94	6.7	6.8					11.2	125.7	78.8	884.3		
19		0.657945	172.0	5.4	84	6.7	6.8										
20		0.763355	180.6	6.5	80	6.7	6.9										
21	613.3155	1.299951	331.1	12.4	88	6.7	6.9										
22	591.2328	1.681876	404.2	13.3	88	6.7	7.0	35.4	495.1	111.3	1556.7	11.9	166.1	75.0	1049.0	19.7	
23	610.4705	1.537061	387.0	12.3	88	6.8	7.0					10.5	134.2	66.0	843.6		
24	606.8343	1.245867	292.4	8.1	92	6.8	6.9										
25		0.580933	120.4	3.2	80	6.8	6.9										
26		0.323024	38.7	1.1	80	6.7	6.7										
27		0.709757	193.5	5.6	82	6.7	6.9										
28	587.8130	1.628239	399.9	12.0	81	6.7	7.2										
29	568.7043	1.420456	421.4	11.7	81	6.7	7.4	17.0	200.8	120.7	1425.8	13.6	160.7	83.0	980.4	32.6	
30	570.3583	1.429869	451.5	12.9	81	6.7	6.9					10.2	121.2	60.0	713.4		
31	601.5560	1.510019	434.3	12.6	82	6.8	7.0										
TOT	12976.4751	37.511073	10358.7	327.4					1079.4		5818.9		1382.6		8100.0		
AVG	589.8398	1.210035	334.2	10.6	86			16.7	215.9	92.4	1163.8	11.1	138.3	65.1	810.0	26.6	319.0

StarKist Seafood, Inc.



P.O. Box 380
Pago Pago, Tutuila Island
American Samoa 96720

Telephone: 684 644-1856
Facsimile: 684 644-2546

July 27, 2004

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Peter Pershut,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of April, May and June of 2004,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of April, May and June of 2004.

Star Kist Samoa met all Effluent limits except for the Temperature and Total Copper.

The Temperature exceeded the 95°F Daily Maximum Limit on June 25, 2004.

The Operators were retrained again on the recently installed Engineering changes that have been implemented to correct the Temperature exceedence problem.

The Total Copper exceeded the Maximum Limit for the month of April. This was caused by an accidental spill of Copper Sulfite which made its way to the Waste Water Treatment Plant. This was a one time occurrence.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

Wastewater Summary Report for the month of April 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	604.5713	1.752466	369.8	13.1	86	6.8	6.9										
2	588.6750	1.655982	322.5	12.5	86	6.8	6.9										
3		0.555355	116.1	4.8	90	6.7	6.8										
4		0.738816	154.8	6.6	77	6.7	6.7										
5	578.8233	1.341540	253.7	14.3	89	6.7	6.7										
6	593.5388	1.718268	460.1	15.6	87	6.7	7.1	36.7	524.4	152.0	2171.9	14.1	201.5	80.0	1143.1	20.2	
7	580.9478	1.703828	417.1	16.1	87	6.8	6.9					14.3	202.6	80.0	1133.5		
8	583.4108	1.646067	331.1	12.7	86	6.8	6.8										
9		0.702320	90.3	2.5	89	6.8	6.8										
10		0.325130	43.0	1.3	78												
11		0.799680	73.1	2.8	76	6.7	6.7										
12	601.5201	1.575911	313.9	14.8	84	6.7	6.7										
13	595.6330	1.783713	447.2	17.3	87	6.7	7.3	10.6	157.2	60.7	900.4	12.4	183.9	80.0	1186.7	24.1	366.0
14	595.5133	1.787449	455.8	14.8	86	6.7	6.8					13.9	206.6	80.0	1189.2		
15	595.7230	1.475496	309.6	13.0	86	6.7	6.7										
16		0.673075	141.9	5.9	87	6.7	6.7										
17		0.447912	60.2	3.2	76	6.7	6.7										
18		0.696480	116.1	5.0	78	6.7	6.7										
19	581.2403	1.361845	318.2	13.4	86	6.7	6.7										
20	580.5673	1.519634	421.4	13.9	85	6.7	6.8										
21	593.9813	1.588489	430.0	15.0	88	6.7	6.9	15.5	204.8	69.3	915.4	14.1	186.3	60.0	792.6	30.4	
22	601.4205	1.689830	412.8	14.8	88	6.8	6.9					13.3	186.9	80.0	1124.2		
23	574.8015	1.439665	326.8	13.0	87	6.7	6.9										
24		0.554619	86.0	3.7	90	6.7	6.7										
25		0.534662	141.9	5.7	77	6.7	6.7										
26	588.4745	1.536275	313.9	13.3	84	6.7	6.8										
27	562.8845	1.694056	455.8	15.2	85	6.7	6.9	30.4	428.3	128.7	1813.1	11.7	164.8	80.0	1127.0	25.9	
28	596.1620	1.448296	339.7	13.5	85	6.7	6.9					14.9	179.5	70.0	843.1		
29	576.8325	1.660238	318.2	13.1	85	6.7	6.8										
30	588.4545	1.293151	184.9	9.7	86	6.7	6.8										
TOT	11763.1753	37.700248	8225.9	320.6					1314.7		5800.8		1512.1		8539.4		
AVG	588.1588	1.256675	274.2	10.7	85			23.3	328.7	102.7	1450.2	13.6	189.0	76.3	1067.4	25.2	366.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

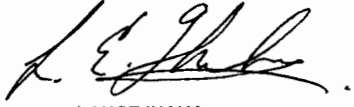
FROM

MONITORING PERIOD

YEAR	MO	DAY		YEAR	MO	DAY
2004	04	01	TO	2004	04	30

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS					
FLOW	SAMPLE MEASUREMENT	1.256675	1.787449	mgd					0	Continuous	Recorder		
	PERMIT REQUIREMENT		2.9							"	"		
BOD5	SAMPLE MEASUREMENT				366.0	366.6	366.0	mg/l	0	Once/Month	Composite		
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"		
TSS	SAMPLE MEASUREMENT	1450.2	2171.9	lbs/day	60.7	102.7	152.0	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"		
OIL & GREASE	SAMPLE MEASUREMENT	328.7	524.4	lbs/ day	10.6	23.3	36.7	mg/l	0	Once/Week	Grab (2)		
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"		
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	189.0	206.6	lbs/day	11.7	13.6	14.9	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"		
TOTAL NITROGEN	SAMPLE MEASUREMENT	1067.4	1189.2	lbs/day	60.0	76.3	80.0	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"		
TOTAL AMMONIA	SAMPLE MEASUREMENT				20.2	25.2	30.4	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT				N/A	N/A	133			"	"		
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE				
 LANCE IHAKA Manager, Engineering and Maintenance													
TYPE OR PRINTED									SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				
									AREA CODE NUMBER	YEAR	MO DAY		

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

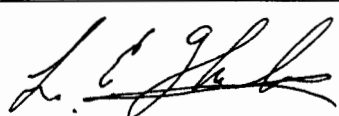
FROM

TO

MONITORING PERIOD								
YEAR	MO	DAY	YEAR	MO	DAY			
2004	04	01	2004	04	30			
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)			

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		AVERAGE	MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
TEMPERATURE	SAMPLE MEASUREMENT					85	90		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95	° F						
pH	SAMPLE MEASUREMENT				6.7		7.3		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS						
TOTAL COPPER	SAMPLE MEASUREMENT					346	346		2	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L						
TOTAL ZINC	SAMPLE MEASUREMENT					182	182		0	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L						
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	TELEPHONE		DATE		
							
LANCE IHAKA Manager, Engineering and Maintenance			SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA CODE	NUMBER	
TYPE OR PRINTED				YEAR	MO	DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of May 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		0.607056	64.5	2.5	89	6.7	6.7										
2		0.686441	103.2	4.5	81	6.7	6.8										
3	532.9400	1.565211	258.0	12.8	88	6.7	6.8										
4	515.0443	1.597291	283.8	12.6	88	6.7	6.7										
5	532.3060	1.269893	352.6	15.1	90	6.7	6.9	12.1	127.8	84.0	887.1	14.1	148.9	90.0	950.4	28.7	
6	503.4190	1.317070	283.8	12.8	88	6.7	6.9					11.6	127.1	80.0	876.2		
7	493.5010	1.245740	249.4	10.5	91	6.7	6.8										
8		0.584467	68.8	2.9	91	6.7	6.7										
9		0.773228	133.3	5.1	78	6.7	6.7										
10	526.3180	1.595106	296.7	12.5	89	6.7	6.8										
11	614.6060	1.393765	270.9	14.0	90	6.7	6.8	27.0	312.9	105.3	1220.5	10.8	125.2	70.0	811.3	26.0	
12	595.0215	1.282828	296.7	12.0	88	6.7	6.9					12.0	128.0	80.0	853.4		459.8
13	590.9133	1.588061	292.4	14.4	88	6.7	6.8										
14	606.6428	1.360505	236.5	11.4	91	6.7	6.8										
15		0.587673	64.5	2.6	90	6.7	6.8										
16		0.641381	68.8	3.3	77	6.7	6.7										
17	594.5968	1.434047	301.0	12.8	87	6.7	6.8										
18	594.0330	1.527674	421.4	13.2	90	6.8	6.8										
19	604.0453	1.535976	352.6	14.9	90	6.6	7.2	55.3	706.4	230.7	2946.8	12.8	163.5	80.0	1021.9	23.5	
20	623.1368	1.539848	365.5	14.7	88	6.8	7.1					12.8	163.9	80.0	1024.4		
21	608.8778	1.703236	412.8	13.7	85	6.9	7.0										
22	607.4965	1.453727	313.9	9.5	88	6.7	6.9										
23		0.980370	223.6	8.3	88	6.7	6.8										
24	521.5710	1.359203	322.5	9.0	82	6.7	6.8										
25	553.4820	1.775860	369.8	13.5	82	6.7	6.8										
26	615.8695	1.792246	352.6	14.6	84	6.7	7.0	3.4	50.7	74.0	1102.9	11.0	163.9	60.0	894.3	30.2	
27	622.3743	1.617734	322.5	12.9	88	6.7	6.9					12.9	173.5	40.0	538.1		
28	594.3988	1.195955	163.4	8.3	90	6.7	6.8										
29		0.635701	38.7	1.8	95	6.7	6.8										
30		0.322559	30.1	1.9	79	6.7	6.7										
31		0.811865	154.8	6.3	78	6.7	6.8										
TOT	12050.5937	37.781717	7469.1	304.4					1197.8		6157.3		1194.0		6472.4		
AVG	573.8378	1.218765	240.9	9.8	87			24.5	299.5	123.5	1539.3	12.3	149.3	72.5	809.1	27.1	459.8

PERMITTEE NAME / ADDRESS (include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 388

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	05	01	2004	05	31

(20-21)

(22-23)


(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)				
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS							
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM								
FLOW	SAMPLE MEASUREMENT	1.218765	1.792246	mgd					0	Continuous	Recorder				
	PERMIT REQUIREMENT		2.9							"	"				
BOD5	SAMPLE MEASUREMENT				459.8	459.8	459.8		0	Once/Month	Composite				
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"				
TSS	SAMPLE MEASUREMENT	1539.3	2946.8	lbs/day	74.0	123.5	230.7		0	Once/Week	Composite				
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"				
OIL & GREASE	SAMPLE MEASUREMENT	299.5	706.4	lbs/ day	3.4	24.5	55.3		0	Once/Week	Grab (2)				
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "				
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	149.3	173.5	lbs/day	10.8	12.3	14.1		0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"				
TOTAL NITROGEN	SAMPLE MEASUREMENT	809.1	1024.4	lbs/day	40.0	72.5	90.0		0	One Set/Month (3)					
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"				
TOTAL AMMONIA	SAMPLE MEASUREMENT				23.5	27.1	30.2		0	Once/Week	Composite				
	PERMIT REQUIREMENT				N/A	N/A	133			"	"				
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE			
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED															
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA	NUMBER	YEAR	MO	DAY		

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS0000019
PERMIT NUMBER

(17-19)
001
DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004


Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2004	05	01	FROM	2004	05	31
			TO			

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
TEMPERATURE	SAMPLE MEASUREMENT					87	95		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95	° F		"	"			
pH	SAMPLE MEASUREMENT				6.6		7.2		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"			
TOTAL COPPER	SAMPLE MEASUREMENT					15	15		0	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L		"	"			
TOTAL ZINC	SAMPLE MEASUREMENT					351.0	351.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"			
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)				TELEPHONE		DATE	
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED						SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA CODE	NUMBER
								YEAR	MO
								DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of June 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	614.9315	1.394142	313.9	13.3	86	6.7	6.8										
2	572.3853	1.410914	352.6	13.1	88	6.7	6.8										
3	562.8760	1.304211	382.7	14.7	91	6.7	6.8	16.9	183.3	78.0	846.0	13.8	149.7	60.0	650.7	37.7	
4	561.0523	1.366476	387.0	13.3	92	6.8	6.8					11.6	131.8	40.0	454.5		
5	587.3255	1.152461	219.3	8.1	86	6.7	6.8										
6		0.844624	98.9	4.2	91	6.7	6.7										
7	609.4868	1.262541	262.3	8.7	88	6.7	6.7										
8	284.0973	1.081139	352.6	12.4	94	6.6	6.7										
9	630.4870	1.457154	361.2	13.4	92	6.7	7.1	17.6	213.3	68.0	824.0	11.3	136.9	70.0	848.2	35.8	408.0
10	643.2635	1.462567	412.8	14.2	90	6.6	6.8					11.7	142.3	70.0	851.4		
11	632.1768	1.255239	296.7	11.2	94	6.7	6.7										
12		0.636813	163.4	3.9	95	6.7	6.7										
13		0.741869	227.9	5.9	76	6.7	6.7										
14	623.3298	1.331593	374.1	11.4	89	6.7	6.8										
15	604.9643	1.607137	447.2	13.2	89	6.7	7.2	19.6	262.0	153.8	2055.5	13.8	184.4	50.0	668.2	25.2	
16	600.8888	1.458685	434.3	14.2	90	6.5	6.9					13.6	165.0	80.0	970.4		
17	616.8983	1.661520	382.7	12.3	88	6.7	6.8										
18	615.9673	1.313998	258.0	8.1	92	6.7	6.7										
19		0.535323	55.9	2.2	89	6.7	6.8										
20		0.734731	124.7	4.4	79	6.7	6.7										
21	617.0945	1.316137	227.9	11.3	87	6.7	6.7										
22	645.0065	1.611744	344.0	10.7	85	6.7	6.7										
23	635.6080	1.761326	382.7	14.5	88	6.7	7.0	6.8	99.6	64.0	937.4	13.0	190.4	70.0	1025.3	42.8	
24	650.0155	1.687641	292.4	14.6	88	6.7	7.0					12.7	178.2	60.0	842.1		
25	633.5143	1.534284	236.5	11.1	98	6.7	6.7										
26		0.564164	43.0	2.4	88	6.7	6.8										
27		0.868078	159.1	6.4	79	6.7	6.8										
28	606.8805	1.409531	258.0	11.8	90	6.7	6.7										
29	597.6180	1.442115	339.7	14.7	92	6.7	6.8	27.7	332.2	121.0	1451.1	12.9	154.7	60.0	719.6	30.4	
30	596.8850	1.551244	361.2	14.1	92	6.7	6.7					12.4	160.0	40.0	516.0		
TOT	13742.7528	37.759401	8552.7	313.8					1090.4		6114.0		1593.4		7546.4		
AVG	597.5110	1.258647	285.1	10.5	89			17.7	218.1	97.0	1222.8	12.7	159.3	60.0	754.6	34.4	408.0

PERMITTEE NAME / ADDRESS (Include
Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc
ADDRESS P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS0000019
PERMIT NUMBER


(17-19)
001
DISCHARGE NUMBER

Form Approved
OMB No. 2040-0004
Expires 3-31-88

FACILITY
LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2004	06	01	FROM	2004	06	30
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS				
FLOW	SAMPLE MEASUREMENT	1.258647	1.761326	mgd						Continuous	Recorder	
	PERMIT REQUIREMENT		2.9							"	"	
BOD5	SAMPLE MEASUREMENT				408.0	408.0	408.0	mg/l	0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A		"	"	"	
TSS	SAMPLE MEASUREMENT	1222.8	2055.5	lbs/day	64.0	97.0	153.8	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A		"	"	"	
OIL & GREASE	SAMPLE MEASUREMENT	218.1	332.2	lbs/ day	6.8	17.7	27.7	mg/l	0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A		"	"	"	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	159.3	190.4	lbs/day	11.3	12.7	13.8	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A		"	"	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	754.6	1025.3	lbs/day	40.0	60.0	80.0	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A		"	"	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				25.2	34.4	42.8	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133		"	"	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE DATE				
 LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT						AREA CODE NUMBER YEAR MO DAY				

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

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FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY		YEAR	MO	DAY
2004	06	01	TO	2004	06	30

(20-21)

(22-23)

(24-25)


(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)			
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					89	98		1	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.5		7.2		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					10	10		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		"	"
TOTAL ZINC	SAMPLE MEASUREMENT					190	190		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	 LANCE IHAKA Manager, Engineering and Maintenance	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	TELEPHONE	DATE		
				AREA CODE	NUMBER	YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The temperature exceeded the 95 °F Daily Maximum Limit on June 25, 2004

StarKist Seafood, Inc.



P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799

Telephone: 684 644-1835
Facsimile: 684 644-2440

April 21, 2004

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Peter Peshut
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of January, February and March of 2004,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2004.

Star Kist Samoa met all Effluent limits except for the Temperature.

The Temperature exceeded the 95°F Daily Maximum Limit on March 19, 2004.

Operators were trained again on the recently installed Engineering change's that have been implemented to correct the Temperature exceedence problem.

Sincerely

A handwritten signature in black ink, appearing to read "L. E. Ihaka", with a stylized flourish at the end.

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Alan Ota
Mr. Steven L. Erickson
Mr. Phil Thirkell

Wastewater Summary Report for the month of January 2004

	Production	Flow	Alum	Poly	Max	pH Limits		Oil &Grease		TSS		TP		TN		Total	BOD
Date	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		0.294182			84												
2		0.404371			82												
3		0.509172	17.2	1.1	81	6.7	6.7										
4		0.846556	124.7	2.8	82	6.7	6.7										
5		0.546061	34.4	1.5	82	6.7	6.7										
6		0.303844	8.6	1.4	82	6.7	6.7										
7		0.264605	17.2	0.5	80	6.7	6.7										
8		0.295083			81												
9		0.096475	12.9		81	6.7	6.7										
10		0.511888			80												
11		0.411051			80												
12	510.7113	1.269998	232.2	8.2	88	6.7	6.8										
13	565.1445	1.496611	430.0	11.4	90	6.7	7.1	20.3	252.7	93.3	1161.2	14.4	179.2	80.0	995.7	21.4	464.2
14	612.5238	1.699591	395.6	10.4	90	6.7	7.3					13.2	186.6	60.0	848.0		
15	523.3400	1.759202	365.5	10.7	90	6.7	6.8										
16	590.0655	1.675097	313.9	9.3	90	6.7	6.9										
17	621.7635	1.603050	279.5	9.2	92	6.7	6.8										
18		1.077240	167.7	5.5	93	6.7	6.7										
19	606.4875	1.526043	283.8	9.5	83	6.7	8.4										
20	609.9133	1.546060	288.1	9.7	83	6.6	8.3										
21	591.5303	1.708340	313.9	13.7	88	6.6	6.7	24.3	345.2	76.7	1089.6	16.6	235.8	80.0	1136.5	34.2	
22	601.8468	1.681900	442.9	13.2	85	6.6	6.7					12.6	176.2	50.0	699.3		
23	602.0818	1.637164	447.2	14.3	84	6.7	6.8										
24	609.9410	1.471499	227.9	10.9	87	6.6	6.8										
25		1.146697	176.3	6.2	86	6.7	6.7										
26	608.2918	1.531397	408.5	16.6	80	6.7	6.7										
27	603.9693	1.801468	460.1	11.0	80	6.7	6.9	7.8	116.9	88.0	1318.3	10.1	151.3	30.0	449.4	26.2	
28	571.7260	1.592779	434.3	12.5	84	6.8	6.9					12.9	170.9	50.0	662.3		
29	545.9780	1.719332	391.3	11.7	86	6.7	6.9										
30	584.9970	1.342278	249.4	8.6	86	6.7	6.9										
31		0.726369	47.3	2.0	91	6.7	6.8										
TOT	9960.3114	34.495403	6570.4	211.9					714.8		3569.1		1100.0		4791.2		
AVG	585.9007	1.112755	252.7	8.2	85			17.5	238.3	86.0	1189.7	13.3	183.3	58.3	798.5	27.3	464.2

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-15)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	01	01		2004	01	31

(20-21)

(22-23)

(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
FLOW	SAMPLE MEASUREMENT	1.112755	1.801468	mgd					0	Continuous	Recorder			
	PERMIT REQUIREMENT		2.9							"	"			
BOD5	SAMPLE MEASUREMENT				464.2	464.2	464.2	mg/l	0	Once/Month	Composite			
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"			
TSS	SAMPLE MEASUREMENT	1189.7	1318.3	lbs/day	76.7	86.0	93.3	mg/l	0	Once/Week	Composite			
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"			
OIL & GREASE	SAMPLE MEASUREMENT	238.2	345.2	lbs/ day	7.8	17.5	24.3	mg/l	0	Once/Week	Grab (2)			
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "			
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	183.3	235.8	lbs/day	10.1	13.3	16.6	mg/l	0	One Set/Month (3)	Composite			
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"			
TOTAL NITROGEN	SAMPLE MEASUREMENT	798.5	1136.5	lbs/day	30.0	58.3	80.0	mg/l	0	One Set/Month (3)	Composite			
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"			
TOTAL AMMONIA	SAMPLE MEASUREMENT				21.4	27.3	34.2	mg/l	0	Once/Week	Composite			
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"			
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE					
LANCE IHAKA Manager, Engineering and Maintenance														
TYPE OR PRINTED									AREA CODE NUMBER YEAR MO DAY					

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

FROM

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	01	01		2004	01	31

(20-21)

(22-23)

(24-25)


(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		(46-53)		(54-61)	UNITS	(38-45)		(46-53)				(54-61)
		AVERAGE	MAXIMUM	MINIMUM		30-DAY AVERAGE	DAILY MAXIMUM					
TEMPERATURE	SAMPLE MEASUREMENT					85	93	° F	0	Continuous	Continuous	
	PERMIT REQUIREMENT					90	95					
pH	SAMPLE MEASUREMENT				6.6		8.4	STD/UNITS	0	Continuous	Continuous	
	PERMIT REQUIREMENT				6.5		8.6					
TOTAL COPPER	SAMPLE MEASUREMENT					11.0	11.0	µg/L	0	Once/Month	Composite	
	PERMIT REQUIREMENT					66	108					
TOTAL ZINC	SAMPLE MEASUREMENT					299.0	299.0	µg/L	0	Once/Month	Composite	
	PERMIT REQUIREMENT					1545	1770					
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											
	SAMPLE MEASUREMENT											
	PERMIT REQUIREMENT											

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	<p>I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)</p>		TELEPHONE		DATE	
<p>LANCE IHAKA</p> <p>Manager, Engineering and Maintenance</p> <p>TYPE OR PRINTED</p>			AREA CODE	NUMBER	YEAR	MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of February 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		0.779371	125.0	2.7	76	6.7	6.8										
2	592.0125	1.343618	296.7	9.3	81	6.7	6.8										
3	554.0913	1.609239	494.5	10.5	83	6.7	7.0										
4	607.1478	1.663352	451.5	11.4	81	6.6	6.9	45.6	630.8	158.0	2185.5	11.2	154.9	70.0	968.3	34.1	
5	618.7470	1.619001	498.8	10.7	81	6.7	6.9					13.0	175.0	90.0	1211.7		
6	616.8620	1.532700	395.6	9.3	89	6.8	6.9										
7		0.701139	180.6	4.2	90	6.8	6.9										
8		0.675669	94.6	4.1	75	6.7	6.8										
9	597.7755	1.640953	369.8	10.5	83	6.7	6.8										
10	619.1208	1.883306	485.9	10.7	84	6.8	7.2	7.7	120.6	84.7	1326.5	10.6	166.0	80.0	1252.9	24.4	
11	618.2985	2.001037	412.8	10.6	85	6.7	7.1					12.4	206.3	90.0	1497.7		
12	624.6625	1.898483	382.7	11	82	6.7	7.0										
13	575.5935	1.782007	391.3	10.5	84	6.7	6.9										
14	603.2030	1.502243	391.3	8.3	85	6.7	6.8										
15		0.640036	176.3	4.4	89	6.7	6.8										
16		0.832818	154.8	4.3	77	6.7	6.7										
17	570.6395	1.382584	326.8	9.9	82	6.7	7.0										
18	535.7560	1.488173	434.3	10.5	86	6.7	7.0	8.8	108.9	89.3	1105.1	13.3	164.6	90.0	1113.8	24.6	418.0
19	539.7920	1.401327	387.0	11.4	86	6.7	6.8					15.9	185.3	80.0	932.3		
20	542.9633	1.598035	378.4	10.5	85	6.7	6.8										
21	605.1978	1.448577	292.4	8.5	86	6.7	6.8										
22		1.065174	193.5	6.4	85	6.7	6.7										
23	575.1815	1.402556	339.7	9.8	86	6.7	6.9										
24	616.4170	1.544295	460.1	12.4	87	6.7	6.8										
25	582.5323	1.470174	421.4	11.4	86	6.7	6.8	14.7	179.7	94.0	1149.2	14.7	179.7	90.0	1100.3	34.2	
26	613.4158	1.595088	442.9	11.2	84	6.7	6.8					13.0	172.4	80.0	1061.2		
27	621.1250	1.480876	348.3	9.7	86	6.7	7.0										
28		0.582171	73.1	2.2	92	6.7	6.8										
29		0.884738	176.3	5.5	81	6.7	6.7										
TOT	12430.5346	39.448740	9576.4	251.9					1040.0		5766.3		1404.2		9138.2		
AVG	591.9302	1.360301	330.2	8.7	84			19.2	260.0	106.5	1441.6	13.0	175.5	83.8	1142.3	29.3	418.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	02	01		2004	02	29

(20-21)

(22-23)

(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS			
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM				
FLOW	SAMPLE MEASUREMENT	1.360301	2.001037	mgd					0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9								"
BOD5	SAMPLE MEASUREMENT				418.0	418.0	418.0	mg/l	0	Once/Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"
TSS	SAMPLE MEASUREMENT	1441.6	2185.5	lbs/day	84.7	106.5	158.0	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"
OIL & GREASE	SAMPLE MEASUREMENT	260.0	630.8	lbs/ day	7.7	19.2	45.6	mg/l	0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	175.5	206.3	lbs/day	10.6	13.0	15.9	mg/l	0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	1142.3	1497.7	lbs/day	70.0	83.8	90.0	mg/l	0	One Set/Month (3)	
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				24.4	29.3	34.2	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133			"	"
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE		DATE	
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED								SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA CODE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	02	01		2004	02	29

(20-21)

(22-23)

(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS			
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM				
TEMPERATURE	SAMPLE MEASUREMENT					84	92	° F	0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95			"	"
pH	SAMPLE MEASUREMENT				6.6		7.2	STD/UNITS	0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6			"	"
TOTAL COPPER	SAMPLE MEASUREMENT					< 10.0	< 10.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108			" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					206.0	206.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770			" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

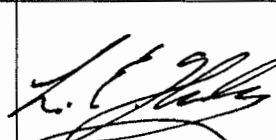
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)

LANCE IHAKA

Manager, Engineering and Maintenance

TYPE OR PRINTED



SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

AREA
CODE NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of March 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	614.5038	1.440026	279.5	9.5	94	6.7	7.3										
2	607.1623	1.666700	399.9	10.4	92	6.7	7.3										
3	633.7785	1.701594	434.3	10.8	91	6.7	7.2	15.0	212.3	97.3	1376.8	13.8	195.3	90.0	1273.5	32.4	
4	607.1473	1.535777	399.9	12.5	92	6.7	7.1					14.5	185.2	80.0	1021.7		
5	598.4328	1.571580	369.8	9.0	89	6.7	6.9										
6		0.708781	129.0	3.3	85	6.7	6.8										
7		1.123496	189.2	6.4	75	6.7	6.8										
8	620.0680	1.449102	395.6	10.0	85	6.7	6.8										
9	616.1173	1.668989	421.4	13.2	88	6.7	7.5	19.1	265.1	106.0	1471.2	15.3	212.4	80.0	1110.3	31.7	480.3
10	562.6875	1.653980	485.9	13.9	88	6.7	7.5					13.5	185.7	90.0	1237.9		
11	630.6543	1.827494	455.8	12.3	86	6.7	7.0										
12	575.8720	1.451493	335.4	8.5	88	6.7	6.8										
13		0.500395	73.1	2.1	90	6.7	6.7										
14		1.219120	193.5	5.0	78	6.7	6.7										
15	606.8628	1.705231	344.0	10.5	88	6.7	6.8										
16	602.7983	1.660952	451.5	12.5	90	6.5	6.8	4.9	67.7	68.0	939.2	10.6	146.4	90.0	1243.1	25.9	
17	602.7650	1.813473	412.8	11.1	88	6.7	6.8					12.7	191.5	90.0	1357.3		
18	602.3630	1.764176	503.1	12.4	88	6.7	6.8										
19	573.6963	1.625830	387.0	11.1	100	6.7	6.8										
20		0.579827	25.8	0.9	85	6.7	6.7										
21		0.694193	141.9	5.1	78	6.7	6.7										
22	600.5668	1.453031	288.1	12.2	90	6.7	6.7										
23	536.3785	1.617885	387.0	11.4	88	6.7	6.7										
24	602.0645	1.737134	425.7	12.1	88	6.7	6.9	25.3	365.5	107.3	1550.1	12.1	174.8	80.0	1155.7	25.1	
25	568.7380	1.967232	447.2	12.0	88	6.7	6.8					10.3	168.5	80.0	1308.8		
26	563.0068	1.686154	296.7	10.0	88	6.7	6.8										
27		0.647948	94.6	2.6	90	6.8	6.8										
28		0.602626	137.6	4.6	76	6.7	6.7										
29	614.3528	1.406001	331.1	11.0	88	6.7	6.9										
30	601.1125	1.626769	352.6	10.9	89	6.7	7.1	15.8	213.7	112.7	1524.6	12.3	166.4	60.0	811.7	26.4	
31	591.9393	1.836910	322.5	11.8	88	6.8	6.9					13.3	203.2	80.0	1222.1		
TOT	13733.0684	43.943899	9911.5	289.1					1124.3		6861.9		1829.4		11742.1		
AVG	597.0899	1.417545	319.7	9.3	87			16.0	224.9	98.3	1372.4	12.8	182.9	82.0	1174.2	28.3	480.3

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

FACILITY

LOCATION

FROM


MONITORING PERIOD

YEAR	MO	DAY
2004	03	01

YEAR	MO	DAY
2004	03	31

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)	(54-61)	UNITS	(54-61)			UNITS			
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	AVERAGE	MAXIMUM				
FLOW	SAMPLE MEASUREMENT	1.417545	1.967232	mgd					0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9								
BOD5	SAMPLE MEASUREMENT				480.3	480.3	480.3	mg/l	0	Once/Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A				
TSS	SAMPLE MEASUREMENT	1372.4	1550.1	lbs/day	68.0	98.3	112.7	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A				
OIL & GREASE	SAMPLE MEASUREMENT	224.9	365.5	lbs/ day	4.9	16.0	25.3	mg/l	0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A				
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	182.9	212.4	lbs/day	10.3	12.8	15.3	mg/l	0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A				
TOTAL NITROGEN	SAMPLE MEASUREMENT	1174.2	1357.3	lbs/day	60.0	82.0	90.0	mg/l	0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A				
TOTAL AMMONIA	SAMPLE MEASUREMENT				25.1	28.3	32.4	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133				
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)					TELEPHONE DATE				
LANCE IHAKA Manager, Engineering and Maintenance											

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM


MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	03	01	2004	03	31

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) (54-61)			(4 Card Only) QUALITY OR CONCENTRATION (38-45) (46-53) (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM			
TEMPERATURE	SAMPLE MEASUREMENT					87	100	1	Continuous	Continuous
	PERMIT REQUIREMENT					90	95		"	"
pH	SAMPLE MEASUREMENT				6.5		7.5	0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					52.0	52.0	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108		"	"
TOTAL ZINC	SAMPLE MEASUREMENT					206.0	206.0	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770		"	"
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)		TELEPHONE		DATE	
			AREA CODE	NUMBER	YEAR	MO DAY

LANCE IHAKA Manager, Engineering and Maintenance						
TYPE OR PRINTED						

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

StarKist Seafood, Inc.

StarKist Seafood, Inc.
P.O. Box 1000
Pago Pago, American Samoa 96799

Telephone: 684 644 1235
Fax: 684 644 2440

February 04, 2005

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Peter Peshut,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

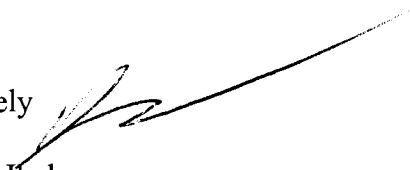
Gentlemen :

Re : **Discharge Monitoring Report for the Months of October, November and December of 2004,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of
October, November and December of 2004.

Star Kist Samoa met all Effluent limits.

Sincerely


Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY


LOCATION

FROM

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	10	01		2004	10	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		30-DAY AVERAGE (46-53)		DAILY MAXIMUM (54-61)	UNITS	30-DAY AVERAGE (46-53)		DAILY MAXIMUM (54-61)				UNITS
FLOW	SAMPLE MEASUREMENT	1.059849	1.740288	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9								"	"
BOD5	SAMPLE MEASUREMENT				426.3	426.3	426.3	mg/l	0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"	
TSS	SAMPLE MEASUREMENT	840.3	970.9	lbs/day	58.7	66.7	78.7	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"	
OIL & GREASE	SAMPLE MEASUREMENT	131.3	162.9	lbs/ day	8.2	10.4	12.6	mg/l	0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	158.4	177.6	lbs/day	9.8	12.1	14.1	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	979.2	1143.3	lbs/day	63.0	74.7	85.0	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				21.3	25.8	31.5	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE DATE				
LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED												
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT						AREA CODE NUMBER YEAR MO DAY				

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	10	01	2004	10	31

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		AVERAGE	MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
TEMPERATURE	SAMPLE MEASUREMENT					83	93		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95	° F		"	"			
pH	SAMPLE MEASUREMENT				6.6		7.2		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"			
TOTAL COPPER	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L		" "	"			
TOTAL ZINC	SAMPLE MEASUREMENT					229.0	229.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"			
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE					
LANCE IHAKA Manager, Engineering and Maintenance														
TYPE OR PRINTED									DATE					
		</												

Wastewater Summary Report for the month of October 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	579.4973	1.540481	318.2	14.8	84	6.7	6.8										
2		0.937127	133.3	5.5	84	6.7	6.8										
3		0.892832	223.6	8.6	78	6.7	6.7										
4	596.5150	1.452208	279.5	15.5	82	6.7	6.7										
5	562.1198	1.554855	447.2	16.0	83	6.7	6.9	12.6	162.9	62.7	810.7	13.6	175.9	69.0	892.2	21.3	426.3
6	572.7830	1.603120	537.5	14.7	84	6.7	6.8					12.6	168.0	78.0	1039.9		
7	579.8738	1.546715	481.6	14.6	84	6.7	6.7										
8	578.7893	1.520196	516.0	15.0	82	6.7	6.8										
9		0.614832	111.8	3.8	85	6.7	6.8										
10		0.348958	30.1	1.3	80	6.7	6.7										
11	SHUT DOWN	0.249038	68.8	1.8	78	6.7	6.7										
12	SHUT DOWN	0.260403	17.2	1.4	77	6.7	6.7										
13	SHUT DOWN	0.171441															
14	SHUT DOWN	0.389968	51.6	0.6	77	6.7	6.7										
15	SHUT DOWN	0.291448	55.9	1.9	75	6.7	6.7										
16	SHUT DOWN	0.321668	34.4	2.3	80	6.7	6.7										
17		0.777147	202.1	9.5	78	6.7	6.7										
18	612.5515	1.582068	412.8	15.5	83	6.7	7.1										
19	607.1345	1.587948	464.4	16.1	83	6.7	7.2										
20	613.9560	1.514796	352.6	15.3	86	6.7	6.9	10.3	129.7	58.7	739.4	14.1	177.6	74.0	932.2	31.5	
21	601.0283	1.740288	485.9	16.3	85	6.6	7.1					11.7	169.3	79.0	1143.3		
22	599.3550	1.382761	326.8	11.3	86	6.8	6.7										
23		0.631094	124.7	4.3	85	6.7	6.7										
24		0.761971	219.3	9.1	78	6.7	6.7										
25	607.8058	1.506344	378.4	15.1	85	6.7	6.8										
26	607.6443	1.483492	498.8	16.1	82	6.7	6.9	8.2	101.2	78.7	970.9	9.8	120.9	63.0	777.2	24.6	
27	582.6775	1.542908	408.5	15.0	87	6.7	6.8					10.8	138.6	85.0	1090.6		
28	607.6160	1.642363	365.5	14.6	85	6.7	6.8										
29	595.8423	1.428895	348.3	14.2	86	6.7	6.9										
30		0.573209	141.9	4.1	93	6.7	6.8										
31		1.004731	172.0	6.5	80	6.7	6.7										
TOT	9505.1894	32.855305	8208.7	300.8					393.8		2521.0		950.3		5875.4		
AVG	594.0743	1.059849	273.6	10.0	83			10.4	131.3	66.7	840.3	12.1	158.4	74.7	979.2	25.8	426.3

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM

YEAR	MO	DAY	TO	YEAR	MO	DAY
2004	11	01		2004	11	30

(20-21)

(22-23)

(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS				
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM					
FLOW	SAMPLE MEASUREMENT	1.191486	1.669439	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9								"	"
BOD5	SAMPLE MEASUREMENT				442.0	442.0	442.0	mg/l	0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"	
TSS	SAMPLE MEASUREMENT	1092.4	1443.6	lbs/day	59.3	83.2	105.3	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"	
OIL & GREASE	SAMPLE MEASUREMENT	290.7	545.8	lbs/ day	12.4	22.3	40.8	mg/l	0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	152.9	182.3	lbs/day	10.7	11.7	13.3	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	935.4	1220.1	lbs/day	55.0	71.5	89.0	mg/l	0	One Set/Month (3)		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				26.0	30.6	36.3	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133			"	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE		DATE	
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED									SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA CODE NUMBER	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

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FACILITY

LOCATION

FROM


TO

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	11	01	2004	11	30

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)			
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					86	92		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.5		7.1		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					<100	<100			Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		"	"
TOTAL ZINC	SAMPLE MEASUREMENT					319.0	319.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)		TELEPHONE		DATE	
			AREA CODE	NUMBER	YEAR	MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The result for Total Copper was reported as <100µg/L because the sample had to be diluted as per our Contract Lab AECOS.

Wastewater Summary Report for the month of November 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	610.5258	1.406286	296.7	14.0	86	6.7	6.9										
2	588.3810	1.450707	344.0	15.5	87	6.7	7.0	20.0	241.3	59.3	715.4	11.4	137.5	78.0	941.0	27.9	
3	612.7988	1.626669	356.9	14.0	88	6.7	6.9					12.2	165.0	56.0	757.5		
4	607.0838	1.669439	374.1	14.6	87	6.7	6.8										
5	609.9733	1.410376	296.7	14.7	86	6.7	6.8										
6		0.690582	94.6	3.4	83	6.7	6.8										
7		0.851038	240.8	9.8	81	6.7	6.8										
8	605.2205	1.566398	318.2	16.2	85	6.7	6.8										
9	621.6713	1.541516	442.9	16.1	86	6.7	7.1	12.4	159.0	66.0	846.1	11.5	147.4	87.0	1115.3	32.1	442.0
10	613.2793	1.621124	348.3	12.8	87	6.7	6.8					11.6	156.4	65.0	876.3		
11	613.1593	1.664801	404.2	10.8	87	6.7	6.8										
12	605.6630	1.360281	313.9	10.0	90	6.7	6.7										
13		0.544226	167.7	5.1	92	6.7	6.7										
14		0.686544	193.5	7.0	81	6.7	6.7										
15	599.2345	1.283616	382.7	12.6	88	6.7	6.7										
16	532.1450	1.544449	365.5	12.9	86	6.7	6.8										
17	614.2910	1.648565	455.8	13.3	88	6.7	6.8	15.8	216.6	105.3	1443.6	13.3	182.3	89.0	1220.1	36.3	
18	606.5595	1.587084	412.8	13.8	86	6.6	6.8					11.3	149.1	55.0	725.9		
19	604.1455	1.485307	425.7	13.1	88	6.7	6.8										
20		0.578550	107.5	3.7	92	6.7	6.7										
21		0.774675	167.7	4.7	82	6.7	6.7										
22	589.9853	1.246785	378.4	11.2	84	6.7	6.9										
23	621.3363	1.608613	455.8	13.4	87	6.7	6.9	40.8	545.8	102.0	1364.5	11.3	151.2	80.0	1070.2	26.0	
24	604.6660	1.507315	382.7	12.5	89	6.7	6.7					10.7	134.1	62.0	777.2		
25		0.524016	120.4	3.0	92	6.7	6.7										
26		0.274225	120.4	2.2	81	6.7	6.7										
27		0.256140	51.6	2.6	83	6.5	6.7										
28		0.614796	223.6	5.1	82	6.7	6.8										
29	598.3435	1.240768	421.4	13.7	85	6.7	6.8										
30	613.2495	1.479675	374.1	11.9	88	6.7	6.8										
TOT	12071.7122	35.744566	9038.6	313.7					1162.7		4369.6		1223.0		7483.5		
AVG	603.5856	1.191486	301.3	10.5	86			22.3	290.7	83.2	1092.4	11.7	152.9	71.5	935.4	30.6	442.0

Wastewater Summary Report for the month of December 2004

	Production	Flow	Alum	Poly	Max	pH Limits		Oil &Grease		TSS		TP		TN		Total	BOD
Date	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	609.9440	1.444468	425.7	10.8	87	6.7	6.9	6.2	74.5	72.0	864.9	12.6	151.4	83.0	997.0	44.7	417.0
2	599.8235	1.322733	477.3	10.7	87	6.7	6.8					13.0	143.0	79.0	869.0		
3	613.6518	1.337513	382.7	10.3	89	6.7	6.8										
4		0.591517	133.3	2.9	93	6.7	6.7										
5		0.596218	146.2	4.9	83	6.7	6.7										
6	612.1935	1.262055	391.3	10.6	83	6.6	6.7										
7	616.9473	1.388232	490.2	10.4	83	6.7	6.8										
8	625.5140	1.456886	417.1	8.9	84	6.7	6.8	43.8	530.7	258.0	3125.8	13.4	162.3	84.0	1017.7	36.2	
9	611.2063	1.477541	412.8	10.4	85	6.7	6.7					13.4	164.6	73.0	897.0		
10	610.7975	1.358193	391.3	10.0	85	6.7	6.7										
11		0.513391	129.0	2.5	90	6.7	6.7										
12		0.973080	270.9	5.4	82	6.6	6.7										
13	613.3830	1.303752	356.9	9.8	86	6.7	6.9										
14	609.6345	1.560054	399.9	10.5	85	6.7	6.9										
15	612.2618	1.490690	369.8	10.4	87	6.6	6.8	39.9	494.6	110.7	1372.3	12.4	153.7	69.0	855.4	39.7	
16	615.2848	1.491643	430.0	10.3	84	6.7	6.7					13.6	168.7	61.0	756.7		
17	614.9005	1.307206	348.3	9.0	84	6.7	6.7										
18		0.448052	111.8	2.6	91	6.5	6.7										
19		0.239575	38.7	0.7	80	6.7	6.7										
20	SHUT DOWN	0.210287	60.2	0.8	82	6.7	6.7										
21	SHUT DOWN	0.191178	25.8	0.9	79	6.7	6.7										
22	SHUT DOWN	0.197206	25.8	0.6	80	6.7	6.7										
23	SHUT DOWN	0.176535	8.6	0.6	82	6.5	6.5										
24	SHUT DOWN	0.128539															
25	SHUT DOWN	0.145792			84	6.7	6.7										
26	SHUT DOWN	0.190603	38.7	2.2	83	6.5	6.7										
27	SHUT DOWN	0.207779	51.6	0.8	86	6.5	6.7										
28	SHUT DOWN	0.296596	34.4	1.5	86	6.6	6.7										
29	SHUT DOWN	0.262262	12.9	0.5	84	6.7	6.8										
30	SHUT DOWN	0.196309	55.9	1.2	80	6.7	6.7										
31	SHUT DOWN	0.276759	47.3	0.9	80	6.7	6.8										
TOT	7965.5425	24.042644	6484.4	161.1					1099.8		5363.0		943.7		5392.8		
AVG	612.7340	0.775569	223.6	5.6	85			30.0	366.6	146.9	1787.7	13.1	157.3	74.8	898.8	40.2	417.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM

TO

YEAR	MO	DAY	YEAR	MO	DAY
2004	12	01	2004	12	31

(20-21)

(22-23)


(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)					
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS					
FLOW	SAMPLE MEASUREMENT	0.775569	1.560054	mgd					0	Continuous	Recorder		
	PERMIT REQUIREMENT		2.9								"	"	
BOD5	SAMPLE MEASUREMENT				417.0	417.0	417.0	mg/l	0	Once/Month	Composite		
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"		
TSS	SAMPLE MEASUREMENT	1787.7	3125.8	lbs/day	72.0	146.9	258.0	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"		
OIL & GREASE	SAMPLE MEASUREMENT	366.6	530.7	lbs/day	6.2	30.0	43.8	mg/l	0	Once/Week	Grab (2)		
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"		
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	157.3	168.7	lbs/day	12.4	13.1	13.6	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"		
TOTAL NITROGEN	SAMPLE MEASUREMENT	898.8	1017.7	lbs/day	61.0	74.8	84.0	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"		
TOTAL AMMONIA	SAMPLE MEASUREMENT				36.2	40.2	44.7	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT				N/A	N/A	133			"	"		
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE				DATE	
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED												AREA CODE	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

NAME STAR KIST SAMOA, Inc
 ADDRESS P. O. BOX 368
 PAGO PAGO AMERICAN SAMOA 96799

 NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)

(2-16) AS0000019 (17-19) 001
 PERMIT NUMBER DISCHARGE NUMBER


FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2004	12	01	TO	2004	12	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
TEMPERATURE	SAMPLE MEASUREMENT					85	93		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.5		6.9		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
TOTAL COPPER	SAMPLE MEASUREMENT					15.0	15.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					242.0	242.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)		TELEPHONE	DATE		
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED			SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

StarKist Seafood, Inc.



P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799

Telephone: 684 644-1835
Facsimile: 684 644-3440

October 03, 2004

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Peter Peshut,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of July, August and September of 2004,**
under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of July, August and September of 2004.

Star Kist Samoa met all Effluent limits except for the 30-Day Average pounds per day of Oil and Grease for the month of September 2004.

The Oil and Grease pounds per day exceeded the 30-Day Average limit for the month of September 2004.

Sincerely,

Lance Ihaka
Manager , Engineering and Maintenance

LI \ls : \npdes \samoa

Attachments :

cc : Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

Wastewater Summary Report for the month of July 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	611.1235	1.553854	382.7	13.4	89	6.7	6.7										
2	572.9593	1.354448	258.0	11.1	89	6.7	6.7										
3		0.546773	51.6	2.7	87	6.7	6.7										
4		0.212569	8.6	0.5	75	6.7	6.7										
5		0.279890	30.1	1.7	73	6.7	6.8										
6		0.776625	189.2	6.3	75	6.7	6.8										
7	614.6320	1.304374	219.3	13.5	90	6.7	6.7										
8	612.4473	1.610224	292.4	15.8	90	6.7	7.1	42.2	565.1	108.7	1455.6	10.1	135.2	60.0	803.4	13.4	
9	607.2505	1.591921	348.3	15.2	86	6.7	7.0					13.1	173.4	80.0	1059.1		
10	624.0913	1.410063	253.7	10.8	85	6.7	6.8										
11		0.969121	163.4	7.8	87	6.7	6.7										
12	607.9715	1.406242	253.7	13.0	83	6.7	6.7										
13	621.5593	1.666302	365.5	14.5	82	6.7	6.8	67.1	929.8	156.7	2171.4	11.7	162.1	80.0	1108.6	17.2	504.0
14	590.4908	1.646314	331.1	14.9	82	6.7	6.9					12.6	172.5	80.0	1095.3		
15	615.9038	1.565937	313.9	15.2	82	6.7	6.7										
16	608.0350	1.246196	240.8	11.9	88	6.7	6.7										
17	SHUT DOWN	0.530567	68.8	3.6	89	6.7	6.7										
18	SHUT DOWN	0.212839	21.5	1.7	75	6.7	6.7										
19	SHUT DOWN	0.293049	17.2	0.7	74	6.7	6.7										
20	SHUT DOWN	0.239255	12.9	0.8	74	6.7	6.7										
21	SHUT DOWN	0.221925	17.2	0.8	76	6.7	6.7										
22	SHUT DOWN	0.224126	17.2	0.6	75	6.7	6.7										
23	SHUT DOWN	0.317928	21.5	1.5	76	6.7	6.7										
24	SHUT DOWN	0.392375	21.5	2.1	76	6.7	6.7										
25		0.747071	47.3	5.8	75	6.7	6.7										
26	605.3468	1.358215	288.1	15.0	90	6.7	6.7										
27	553.2643	1.398416	356.9	15.4	88	6.7	6.7	32.9	382.6	102.7	1194.3	10.5	122.1	70.0	814.0	19.9	
28	597.3913	1.562735	369.8	16.8	88	6.7	6.7					13.1	170.2	80.0	1039.7		
29	591.6293	1.532940	395.6	15.0	90	6.7	6.7										
30	609.0453	1.359091	236.5	8.5	88	6.7	6.7										
31		0.510305	116.1	3.8	88	6.7	6.7										
TOT	9643.1413	30.041690	5710.4	260.4					1877.5		4821.3		935.5		5920.1		
AVG	602.6963	0.969087	184.2	8.4	83			47.4	625.8	122.7	1607.1	11.9	155.9	75.0	986.7	16.8	504.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) AS0000019	(17-19) 001
PERMIT NUMBER	DISCHARGE NUMBER



Form Approved
OMB No. 2040-0004
Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	2004	07	01		2004	07	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (45-53)			QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (54-58)	SAMPLE TYPE (69-70)			
		30-DAY AVERAGE (46-53)	DAILY MAXIMUM (54-61)	UNITS	MINIMUM (38-45)	30-DAY AVERAGE (46-53)	DAILY MAXIMUM (54-61)	UNITS						
FLOW	SAMPLE MEASUREMENT	0.969087	1.666302	mgd				0	Continuous	Recorder				
	PERMIT REQUIREMENT		2.9											
BOD5	SAMPLE MEASUREMENT				504.0	504.0	504.0	0	Once/Month	Composite				
	PERMIT REQUIREMENT				N/A	N/A	N/A				mg/l			
TSS	SAMPLE MEASUREMENT	1607.1	2171.4	lbs/day	102.7	122.7	156.7	0	Once/Week	Composite				
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A				mg/l			
OIL & GREASE	SAMPLE MEASUREMENT	625.8	929.8	lbs/ day	32.9	47.4	67.1	0	Once/Week	Grab (2)				
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A				mg/l			
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	155.9	173.4	lbs/day	10.1	11.9	13.1	0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A				mg/l			
TOTAL NITROGEN	SAMPLE MEASUREMENT	986.7	1108.6	lbs/day	60.0	75.0	80.0	0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A				mg/l			
TOTAL AMMONIA	SAMPLE MEASUREMENT				13.4	16.8	19.9	0	Once/Week	Composite				
	PERMIT REQUIREMENT				N/A	N/A	133				mg/l			
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE				DATE	
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED									 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				AREA CODE	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

MONITORING PERIOD

FROM

YEAR MO DAY
2004 07 01

TO

YEAR MO DAY
2004 07 31

NOTE: If you are submitting this report by mail, please include a copy of this report with the permit.

PARAMETER (32-37)		QUANTITY OR LOADING (46-53)			QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		AVERAGE (46-53)	MAXIMUM (54-61)	UNITS (54-61)	MINIMUM (38-45)	30-DAY AVERAGE (46-53)	DAILY MAXIMUM (54-61)	UNITS (54-61)						
TEMPERATURE	SAMPLE MEASUREMENT					83	90		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95	° F		"	"			
pH	SAMPLE MEASUREMENT				6.7		7.1		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"			
TOTAL COPPER	SAMPLE MEASUREMENT					97.0	97.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L		"	"			
TOTAL ZINC	SAMPLE MEASUREMENT					308.0	308.0		0	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"			
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	TELEPHONE		DATE	

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

LANCE IHAKA
Manager, Engineering and Maintenance

TYPE OR PRINTED

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of August 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		0.812481	133.3	7.5	76	6.7	6.7										
2	596.3140	1.431904	249.4	15.2	86	6.7	6.7										
3	553.0603	1.596104	313.9	14.6	86	6.7	6.7										
4	605.1083	1.596954	387.0	13.8	90	6.7	6.9	16.4	217.8	68.0	903.1	12.4	164.7	60.0	796.8	21.1	424.0
5	594.3448	1.537583	369.8	15.3	86	6.7	6.8					11.6	148.3	70.0	895.1		
6	598.2830	1.421638	331.1	16.3	83	6.7	6.7										
7		0.488431	120.4	3.0	82	6.7	6.8										
8		0.680742	240.8	11.0	76	6.7	6.7										
9	577.2483	1.371584	322.5	15.6	86	6.7	6.8										
10	581.5045	1.434863	266.6	16.1	85	6.7	6.7										
11	579.9590	1.352215	279.5	16.3	85	6.6	6.7										
12	562.2100	1.497131	356.9	16.5	85	6.7	6.7	9.3	115.8	388.7	4839.4	13.4	166.8	80.0	996.0	22.1	
13	580.8490	1.344802	223.6	11.1	87	6.6	6.8					16.0	178.9	80.0	894.7		
14		0.588025	43.0	3.7	89	6.7	7.0										
15		0.781590	236.5	10.1	79	6.7	6.7										
16	584.7168	1.291548	313.9	15.2	84	6.7	6.7										
17	604.9678	1.489330	356.9	16.3	86	6.7	6.9										
18	590.7315	1.619246	352.6	16.5	86	6.7	6.8	39.8	535.9	113.3	1525.7	12.0	161.6	70.0	942.6	35.2	
19	620.5523	1.469171	322.5	15.4	85	6.7	6.7					14.2	173.5	93.0	1136.2		
20	620.6203	1.476147	279.5	14.1	88	6.7	6.7										
21	SHUT DOWN	0.576966	60.2	2.3	93	6.7	6.7										
22	SHUT DOWN	0.275325			82												
23	SHUT DOWN	0.259455	8.6	0.5	80	6.7	6.7										
24	SHUT DOWN	0.301106	38.7	2.3	80	6.7	6.7										
25	SHUT DOWN	0.159654			80												
26	SHUT DOWN	0.232018	21.5	1.6	80	6.7	6.7										
27	SHUT DOWN	0.346797			78												
28	SHUT DOWN	0.50178	38.7	0.9	79	6.8	6.8										
29	SHUT DOWN	1.000000	167.7	8.9	79	6.7	6.7										
30	596.8343	1.417303	262.3	14.9	85	6.7	7.7										
31	592.9540	1.527960	163.4	16.9	85	6.7	7.1										
TOT	10040.2582	31.879853	6260.8	311.9					869.5		7268.2		993.8		5661.4		
AVG	590.6034	1.028382	223.6	11.1	84			21.8	289.8	190.0	2422.7	13.3	165.6	75.5	943.6	26.1	424.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	08	01	2004	07	2004

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS			
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM				
FLOW	SAMPLE MEASUREMENT	1.028382	1.619246	mgd					0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9								"
BOD5	SAMPLE MEASUREMENT				424.0	424.0	424.0	mg/l	0	Once/Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"
TSS	SAMPLE MEASUREMENT	2422.7	4839.4	lbs/day	68.0	190.0	388.7	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"
OIL & GREASE	SAMPLE MEASUREMENT	289.8	535.9	lbs/day	9.3	21.8	39.8	mg/l	0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	165.6	178.9	lbs/day	11.6	13.3	16.0	mg/l	0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	943.8	1136.2	lbs/day	60.0	75.5	93.0	mg/l	0	One Set/Month (3)	
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				21.1	26.1	35.2	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133			"	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	TELEPHONE		DATE	
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

FROM
YEAR MO DAY
2004 08 01
TO
YEAR MO DAY
2004 08 31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS					
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM						
TEMPERATURE	SAMPLE MEASUREMENT					84	93		0	Continuous	Continuous		
	PERMIT REQUIREMENT					90	95	° F		"	"		
pH	SAMPLE MEASUREMENT				6.6		7.7		0	Continuous	Continuous		
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"		
TOTAL COPPER	SAMPLE MEASUREMENT					13.0	13.0		0	Once/Month	Composite		
	PERMIT REQUIREMENT					66	108	µg/L		" "	"		
TOTAL ZINC	SAMPLE MEASUREMENT					343.0	343.0		0	Once/Month	Composite		
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"		
	SAMPLE MEASUREMENT												
	PERMIT REQUIREMENT												
	SAMPLE MEASUREMENT												
	PERMIT REQUIREMENT												
	SAMPLE MEASUREMENT												
	PERMIT REQUIREMENT												
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE	
LANCE IHAKA Manager, Engineering and Maintenance													
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE NUMBER		YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of September 2004

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	587.6228	1.577857	292.4	15.6	85	6.7	6.8	119.8	1572.0	232.7	3053.4	14.5	196.3	99.0	1299.0	18.1	
2	602.2803	1.670781	296.7	17.5	85	6.6	6.7					11.1	154.2	73.0	1014.3		
3	599.2913	1.467894	270.9	14.8	91	6.7	6.7										
4		0.633494	150.5	5.9	91	6.7	6.8										
5		0.275176			81												
6		0.340958	38.7	3.2	78	6.7	6.7										
7		0.843169	245.1	8.9	78	6.7	6.8										
8	571.1690	1.626298	236.5	17.3	82	6.7	6.9	81.1	1096.8	204.7	2768.4	9.8	132.5	60.0	811.5	10.1	488.0
9	579.5015	1.479865	262.3	16.8	82	6.7	6.9					12.5	153.8	67.0	824.5		
10	560.9105	1.641002	240.8	16.9	84	6.7	6.8										
11	544.9493	1.467290	215.0	16.5	82	6.7	6.8										
12		1.006759	180.6	9.8	83	6.7	6.8										
13	606.5595	1.384200	245.1	13.7	82	6.7	6.8										
14	600.3350	1.659999	236.5	16.4	82	6.7	6.8										
15	606.4075	1.638557	215.0	17.5	83	6.7	7.0	26.2	357.0	104.0	1417.1	15.9	216.7	84.0	1144.6	25.0	
16	582.1003	1.594370	202.1	16.8	82	6.7	6.8					14.8	196.2	91.0	1206.5		
17	588.7270	1.376902	150.5	13.9	84	6.7	6.8										
18		0.544162	30.1	2.5	85	6.7	6.7										
19		0.600565	103.2	3.9	80	6.7	6.7										
20	578.4765	1.504283	219.3	11.7	81	6.7	6.7										
21	579.9463	1.645982	391.3	13.9	85	6.7	6.8										
22	580.3713	1.673211	382.7	16.9	85	6.6	7.0	54.8	762.5	144.7	2013.4	15.6	217.1	90.0	1252.3	26.3	
23	568.7023	1.902564	503.1	16.7	86	6.5	6.9					12.0	189.9	74.0	1170.8		
24	575.3823	1.662392	404.2	13.2	85	6.7	6.9										
25		0.592360	154.8	4.8	90	6.7	6.8										
26		0.989270	236.5	8.4	81	6.7	6.7										
27	597.9725	1.621537	292.4	15.8	84	6.7	6.9										
28	568.7575	1.673842	202.1	15.4	84	6.7	6.9										
29	579.1615	1.583264	421.4	17.1	83	6.7	6.8	32.5	427.9	66.7	878.2	10.3	135.6	83.0	1092.8	23.7	
30	580.7723	1.711195	412.8	16.3	83	6.7	7.0					12.8	182.1	90.0	1280.7		
TOT	12239.3965	39.389198	7232.6	378.1					4216.2		10130.5		1768.4		11097.0		
AVG	582.8284	1.312973	249.4	13.0	84			62.9	843.2	150.6	2026.1	12.9	176.8	81.1	1109.7	20.6	488

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019
PERMIT NUMBER

(17-19)

001
DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM



MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	09	01	2004	09	30

TO

(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS					
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	AVERAGE	MAXIMUM						
FLOW	SAMPLE MEASUREMENT	1.312973	1.902564	mgd						Continuous	Recorder		
	PERMIT REQUIREMENT		2.9										
BOD5	SAMPLE MEASUREMENT					488	488.0	mg/l	0	Once/Month	Composite		
	PERMIT REQUIREMENT				N/A	N/A	N/A						
TSS	SAMPLE MEASUREMENT	2026.1	3053.4	lbs/day	66.7	150.6	232.7	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A						
OIL & GREASE	SAMPLE MEASUREMENT	843.2	1572.0	lbs/day	26.2	62.9	119.8	mg/l	1	Once/Week	Grab (2)		
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A						
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	176.8	217.1	lbs/day	9.8	12.9	15.9	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A						
TOTAL NITROGEN	SAMPLE MEASUREMENT	1109.7	1299.0	lbs/day	60.0	81.1	99.0	mg/l	0	One Set/Month (3)	Composite		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A						
TOTAL AMMONIA	SAMPLE MEASUREMENT				10.1	20.6	26.3	mg/l	0	Once/Week	Composite		
	PERMIT REQUIREMENT				N/A	N/A	133						
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE				DATE	
 LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED								 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				AREA CODE	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2004	09	01	2004	09	30

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)							
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)										
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS										
TEMPERATURE	SAMPLE MEASUREMENT					84	91		0	Continuous	Continuous							
	PERMIT REQUIREMENT					90	95	° F		"	"							
pH	SAMPLE MEASUREMENT				6.5		7.0		0	Continuous	Continuous							
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"							
TOTAL COPPER	SAMPLE MEASUREMENT					11.0	11.0		0	Once/Month	Composite							
	PERMIT REQUIREMENT					66	108	µg/L		"	"							
TOTAL ZINC	SAMPLE MEASUREMENT					257.0	257.0		0	Once/Month	Composite							
	PERMIT REQUIREMENT					1545	1770	µg/L		"	"							
	SAMPLE MEASUREMENT																	
	PERMIT REQUIREMENT																	
	SAMPLE MEASUREMENT																	
	PERMIT REQUIREMENT																	
	SAMPLE MEASUREMENT																	
	PERMIT REQUIREMENT																	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE									
LANCE IHAKA,																		
Manager, Engineering and Maintenance																		
TYPE OR PRINTED									DATE									

StarKist Seafood, Inc.

P.O. Box 828
Fagaloa Village, Tafa'otu Island
American Samoa 96799

Telephone: (684) 744-1100
Fax: (684) 744-2430

July 17, 2003

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of April, May and June of 2003,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of April, May and June of 2003.

Star Kist Samoa met all Effluent limits.

Sincerely



Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc : Mr. Peter Peshut

Mr. Alan Ota

Mr. Steven L. Erickson

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2003	04	01	2003	04	30

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)				
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS							
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM								
FLOW	SAMPLE MEASUREMENT	1.198355	1.929765	mgd					0	Continuous	Recorder				
	PERMIT REQUIREMENT		2.9							"	"				
BOD5	SAMPLE MEASUREMENT				521.7	521.7	521.7	mg/l	0	Once/Month	Composite				
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"				
TSS	SAMPLE MEASUREMENT	776.5	1110.9	lbs/day	34.0	56.8	84.7	mg/l	0	Once/Week	Composite				
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"				
OIL & GREASE	SAMPLE MEASUREMENT	371.0	493.2	lbs/ day	11.3	27.1	36.7	mg/l	0	Once/Week	Grab (2)				
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "				
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	167.1	219.9	lbs/day	8.3	11.8	13.7	mg/l	0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"				
TOTAL NITROGEN	SAMPLE MEASUREMENT	1045.4	1283.8	lbs/day	60.0	73.8	80.0	mg/l	0	One Set/Month (3)	Composite				
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"				
TOTAL AMMONIA	SAMPLE MEASUREMENT				26.0	29.1	33.8	mg/l	0	Once/Week	Composite				
	PERMIT REQUIREMENT				N/A	N/A	133			" "	"				
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE			
LANCE IHAKA Manager, Engineering and Maintenance															
TYPE OR PRINTED									AREA CODE NUMBER			YEAR	MO DAY		

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2003	04	01	2003	04	30

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)					
		(48-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS								
		AVERAGE	MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM									
TEMPERATURE	SAMPLE MEASUREMENT					85	93		0	Continuous	Continuous					
	PERMIT REQUIREMENT					90	95	° F		"	"					
pH	SAMPLE MEASUREMENT				6.7		7.2		0	Continuous	Continuous					
	PERMIT REQUIREMENT				6.5		8.6			"	"					
TOTAL COPPER	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite					
	PERMIT REQUIREMENT					66	108	µg/L		" "	"					
TOTAL ZINC	SAMPLE MEASUREMENT					123.0	123.0		0	Once/Month	Composite					
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"					
	SAMPLE MEASUREMENT															
	PERMIT REQUIREMENT															
	SAMPLE MEASUREMENT															
	PERMIT REQUIREMENT															
	SAMPLE MEASUREMENT															
	PERMIT REQUIREMENT															
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE			DATE				
LANCE IHAKA Manager, Engineering and Maintenance																
TYPE OR PRINTED									SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of April 2003

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	636.1955	1.754030	485.9	12.9	83	6.7	6.9	28.0	408.4	53.3	777.5	13.1	191.1	80.0	1166.9	26.0	521.7
2	644.5288	1.929765	520.3	15.4	87	6.7	6.9					13.7	219.9	80.0	1283.8		
3	663.4555	1.560172	460.1	11.4	92	6.7	6.8										
4	649.9023	1.854014	421.4	12.7	89	6.7	6.7										
5	613.8568	1.381849	210.7	6.2	84	6.7	6.7										
6		1.065522	219.3	6.3	83	6.7	6.7										
7	589.7883	1.281308	455.8	12.0	87	6.7	6.8										
8	587.9028	1.616014	468.7	11.8	88	6.7	7.2	36.7	493.2	55.3	743.2	11.8	158.6	60.0	806.3	33.8	
9	623.5903	1.720562	438.6	12.8	84	6.7	6.9					11.8	168.8	80.0	1144.7		
10	622.7220	1.699305	395.6	11.6	87	6.7	6.9										
11	611.3678	1.521577	313.9	10.3	86	6.7	6.8										30.2
12	SHUT DOWN	.647901	146.2	3.9	84	6.7	6.8										
13	SHUT DOWN	.355815	12.9	1.4	81	6.7	6.8										
14	SHUT DOWN	.351198	34.4	0.9	81	6.7	6.7										
15	SHUT DOWN	.340296	51.6	1.8	81	6.7	6.8										
16	SHUT DOWN	.346823	73.1	1.5	93	6.7	6.7										
17	SHUT DOWN	.273562	30.1	1.1	84	6.7	6.7										
18	SHUT DOWN	.271151	47.3	1.5	82	6.7	6.7										
19	SHUT DOWN	.407795	64.5	2.2	81	6.7	6.7										
20	SHUT DOWN	.803701	150.5	5.7	88	6.7	6.7										
21	510.7678	1.302561	348.3	11.3	86	6.7	6.9										26.3
22	458.0850	1.468343	382.7	13.0	90	6.7	6.8										
23	628.7905	1.577116	438.6	13.9	93	6.7	6.8	32.4	424.9	84.7	1110.9	11.3	148.2	70.0	918.1	30.2	
24	623.3923	1.545242	395.6	13.2	82	6.7	6.8					12.1	155.5	80.0	1028.0		
25	664.2800	1.602640	352.6	10.7	86	6.7	6.8										
26	629.0218	1.325749	288.1	9.1	83	6.7	6.7										
27		1.069028	219.3	7.9	83	6.7	6.8										
28	636.7748	1.429092	270.9	11.3	82	6.7	6.7										
29	628.9000	1.677415	494.5	12.4	84	6.7	7.0	11.3	157.6	34.0	474.3	8.3	115.8	60.0	837.0	26.3	
30	577.8000	1.771109	468.7	13.5	82	6.7	6.8					12.0	178.7	80.0	1178.3		
TOT	11601.1223	35.950655	8660.2	259.7					1484.1		3105.9		1336.6		8363.1		521.7
AVG	610.5854	1.198355	288.7	8.7	85			27.1	371.0	56.8	776.5	11.8	167.1	73.8	1045.4	29.1	

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER

FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2003	05	01	TO	2003	05	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS				
FLOW	SAMPLE MEASUREMENT	1.312000	1.686441	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9							"	"	
BOD5	SAMPLE MEASUREMENT				357.0	357.0	357.0	mg/l	0	Once/Month	Composite	
	PERMIT REQUIREMENT				N/A	N/A	N/A			" "	"	
TSS	SAMPLE MEASUREMENT	920.6	2313.0	lbs/day	20.0	70.4	166.0	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			" "	"	
OIL & GREASE	SAMPLE MEASUREMENT	397.9	889.0	lbs/ day	10.9	30.8	63.8	mg/l	0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			" "	" "	
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	150.4	190.9	lbs/day	7.4	11.3	13.9	mg/l	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			" "	"	
TOTAL NITROGEN	SAMPLE MEASUREMENT	978.8	1234.0	lbs/day	50.0	73.8	90.0	mg/l	0	One Set/Month (3)		
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			" "	"	
TOTAL AMMONIA	SAMPLE MEASUREMENT				9.0	22.7	34.4	mg/l	0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A	N/A	133			"	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						TELEPHONE DATE				
LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT						AREA CODE NUMBER	YEAR	MO	DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

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OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2003	05	01	2003	05	31

FROM

TO

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS			
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM				
TEMPERATURE	SAMPLE MEASUREMENT					84	89	° F	0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95		"	"	
pH	SAMPLE MEASUREMENT				6.5		7.6		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6		"	"	
TOTAL COPPER	SAMPLE MEASUREMENT					<50	<50	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108		" "	"	
TOTAL ZINC	SAMPLE MEASUREMENT					320.0	320.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770		" "	"	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)



SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

LANCE IHAKA

Manager, Engineering and Maintenance

TYPE OR PRINTED

AREA
CODE

NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of May 2003

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1	600.1070	1.562416	361.2	11.1	83	6.7	6.8										
2	573.8560	1.388057	344.0	10.9	88	6.7	6.7										
3		0.673573	90.3	2.8	82	6.7	6.7										
4		0.948305	202.1	6.2	82	6.7	6.7										
5	584.2155	1.358473	283.8	11.1	89	6.7	6.7										
6	573.1225	1.656584	451.5	13.7	83	6.7	6.8										
7	575.9550	1.515639	387.0	12.4	85	6.7	6.9	10.9	137.4	28.7	361.7	11.3	142.4	70.0	882.3	27.1	357.0
8	562.1665	1.643202	335.4	13.4	85	6.7	6.9					12.0	164.0	70.0	956.5		
9	594.0685	1.406280	253.7	9.8	86	6.7	6.8										
10		0.845948	206.4	7.2	84	6.7	6.8										
11		1.002728	150.5	6.8	84	6.7	6.8										
12	598.5500	1.478678	236.5	10.4	86	6.7	6.7										
13	529.9443	1.500890	425.7	12.1	86	6.7	6.7										
14	585.8075	1.675539	365.5	13.9	86	6.7	6.9	63.8	889.0	166.0	2313.0	13.7	190.9	80.0	1114.7	34.4	
15	608.2198	1.648776	378.4	12.6	88	6.7	6.8					13.9	190.6	90.0	1234.0		
16	621.3243	1.489762	313.9	11.0	86	6.7	6.8										
17		0.735210	94.6	3.5	83	6.7	6.7										
18		0.892320	240.8	6.7	83	6.7	6.7										
19	426.7695	1.250219	210.7	7.9	82	6.7	6.7										
20		0.841490	219.3	7.4	83	6.7	6.7										
21	418.3940	1.324250	434.3	12.6	83	6.7	7.6	36.8	405.3	66.7	734.5	7.4	81.5	50.0	550.6	9.0	
22	629.8660	1.544150	425.7	14.1	83	6.7	6.8					12.2	156.7	80.0	1027.3		
23	608.4648	1.484989	344.0	11.8	83	6.8	6.7										
24	617.8488	1.493268	438.6	10.3	83	6.5	6.8										
25		0.573792	111.8	3.8	83	6.7	6.8										
26		0.868801	202.1	4.9	83	6.7	6.7										
27	626.8065	1.476809	399.9	10.9	84	6.7	6.9										
28	637.1155	1.628749	374.1	12.8	86	6.7	6.9	11.8	159.8	20.0	270.9	9.5	128.7	80.0	1083.6	20.2	
29	594.2898	1.686441	378.4	12.2	82	6.7	6.9					10.6	148.7	70.0	981.7		
30	549.1818	1.641150	455.8	14.3	84	6.7	6.8										
31	558.9640	1.436192	322.5	10.4	83	6.7	6.7										
TOT	12675.0376	40.672680	9438.5	309.0					1591.5		3680.1		1203.5		7830.7		
AVG	576.1381	1.312000	304.5	10.0	84			30.8	397.9	70.4	920.6	11.3	150.4	73.8	978.8	22.7	357.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

FROM

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2003	06	01	2003	06	30

(20-21)

(22-23)


(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS			
FLOW	SAMPLE MEASUREMENT	1.269839	1.671159	mgd					0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9								"
BOD5	SAMPLE MEASUREMENT				452.0	452.0	452.0	mg/l	0	Once/Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A			"	"
TSS	SAMPLE MEASUREMENT	632.9	883.1	lbs/day	33.3	48.8	70.0	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A			"	"
OIL & GREASE	SAMPLE MEASUREMENT	146.0	255.5	lbs/day	7.1	11.1	18.6	mg/l	0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A			"	"
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	152.8	169.9	lbs/day	10.2	11.7	13.5	mg/l	0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A			"	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	1045.9	1243.5	lbs/day	50.0	80.0	90.0	mg/l	0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A			"	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				19.0	25.7	29.8	mg/l	0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133			"	"
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)						 TELEPHONE _____ DATE _____ AREA CODE _____ NUMBER _____ YEAR _____ MO _____ DAY _____			
LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED								SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

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PERMIT NUMBER

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FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY		YEAR	MO	DAY
2003	06	01	TO	2003	06	30

(20-21)

(22-23)

(24-25)

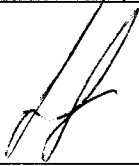
(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		AVERAGE	MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
TEMPERATURE	SAMPLE MEASUREMENT					83	88		0	Continuous	Continuous			
	PERMIT REQUIREMENT					90	95			"	"			
pH	SAMPLE MEASUREMENT				6.6		7.0		0	Continuous	Continuous			
	PERMIT REQUIREMENT				6.5		8.6			"	"			
TOTAL COPPER	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite			
	PERMIT REQUIREMENT					66	108	µg/L		" "	"			
TOTAL ZINC	SAMPLE MEASUREMENT					139	139		0	Once/Month	Composite			
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"			
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													
	SAMPLE MEASUREMENT													
	PERMIT REQUIREMENT													

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)		TELEPHONE DATE			
			AREA CODE	NUMBER	YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of June 2003

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Eff mg/l	Total #/day	Ammonia Eff mg/l	Eff mg/l
1		1.093903	202.1	7.1	83	6.7	6.7										
2	575.6973	1.373168	365.5	10.5	85	6.7	6.7										
3	579.1683	1.512998	485.9	14.2	83	6.7	6.9	11.2	140.9	38.7	486.9	13.5	169.9	80.0	1006.6	26.2	
4	580.3448	1.548809	520.3	13.3	82	6.7	6.9					11.4	146.8	50.0	644.0		
5	580.5463	1.580037	438.6	12.3	83	6.7	6.9										
6	575.9458	1.619585	408.5	11.0	84	6.7	6.9										
7		0.743627	159.1	3.8	83	6.7	6.7										
8		0.796185	163.4	6.1	82	6.7	6.7										
9	579.2903	1.393859	374.1	10.0	88	6.7	6.8										
10	570.9178	1.651592	447.2	13.2	83	6.7	7.0	18.6	255.5	53.3	732.1	10.7	147.0	90.0	1236.1	19.0	452.0
11	593.5493	1.661426	477.3	10.9	83	6.7	6.9					10.2	140.9	90.0	1243.5		
12	593.2328	1.671159	245.1	9.6	84	6.7	6.7										
13	577.1143	1.417804	184.9	8.8	81	6.7	6.7										
14		0.634296	64.5	2.6	81	6.7	6.7										
15		0.655617	94.6	4.2	82	6.7	6.7										
16	582.8348	1.378728	129.0	7.9	83	6.7	6.8										
17	595.9913	1.550890	399.9	12.6	83	6.7	7.0	7.1	91.6	33.3	429.5	12.3	158.6	80.0	1031.8	29.8	
18	604.4883	1.636021	288.1	12.6	82	6.6	6.8					11.7	159.2	80.0	1088.4		
19	599.2760	1.472691	111.8	8.6	82	6.7	6.8										
20	582.4045	1.354873	116.1	8.0	82	6.7	6.7										
21		0.591041	34.4	1.4	83	6.7	6.7										
22		0.709305	103.2	3.8	82	6.7	6.8										
23	603.0393	1.451251	210.7	9.2	82	6.7	6.8										
24	582.1440	1.517017	399.9	13.0	82	6.7	6.9	7.6	95.9	70.0	883.1	12.2	153.9	90.0	1135.4	27.9	
25	619.3910	1.475447	498.8	11.3	82	6.7	6.9					11.9	146.0	80.0	981.6		
26	603.1708	1.460217	292.4	8.6	83	6.7	6.7										
27	599.6185	1.294792	167.7	6.6	82	6.7	6.7										
28		0.598131	81.7	1.8	81	6.7	6.7										
29		0.751278	86.0	4.0	81	6.7	6.7										
30	592.1955	1.499434	326.8	9.9	83	6.7	6.7										
TOT	12370.3610	38.095181	7877.6	256.9					583.9		2531.6		1222.3		8367.4		
AVG	589.0648	1.269839	262.6	8.6	83			11.1	146.0	48.8	632.9	11.7	152.8	80.0	1045.9	25.7	452.0

TO: PETER
FM: CARL

StarKist Samoa, Inc.

December 3, 2001

Mr. Carl L. Goldstein
US EPA Region 9
Pacific Insular Area Program {CMD-5}
75 Hawthorne Street
San Francisco, CA 04105

RE: Temporary Arrangement to Eliminate Ocean Dumping

Dear Mr. Goldstein:

StarKist Samoa has been requested to provide Blue North with a three week period during which the F/V Tasman Sea will be cleaned and repaired. The F/V Tasman Sea is the vessel used to haul and dispose high strength wastewater and DAF sludge pursuant to StarKist's Ocean Dumping Permit.

Due to required production levels StarKist can accommodate a maximum two weeks' downtime. In addition, two weeks' downtime is the longest period allowed under the agreement between StarKist and Blue North. However, due to the critical need to have a serviceable vessel to satisfy the requirements of the Ocean Dumping Permit, StarKist feels it necessary to accommodate Blue North's request.

Therefore, StarKist requests permission to process high-strength wastewater streams through the plant's wastewater treatment system, mixed with the regular process wastewater, for a period of one week. This will eliminate the need for ocean dumping services for that week. The modified process to be used is described below. Timeframe is as follows:

StarKist production downtime: 22-Dec-2001 through 05-Jan-2002

Modified wastewater process: 06-Jan-2002 through 12-Jan-2002

Modified Process

StarKist currently produces approximately 1,000,000 gallons per day of process wastewater and 100,000 gallons per day of high-strength wastewater. The high-strength wastewater is normally collected separately and disposed under the requirements of StarKist's Ocean Dumping Permit, along with sludge produced by the DAF (dissolved air flotation) unit in the wastewater treatment system.

The high-strength wastewater consists of pre-cooker water and fish meal press liquor. Pre-cooker water is a combination of condensed steam from cooking the fish and city water sprayed on the cooked fish to cool them. Press liquor is the liquid waste produced by pressing cooked tuna scrap, prior to sending the scraps to the fish meal drier.

Under the modified process, both high-strength streams will be processed through the wastewater treatment system. The high-strength streams will be combined with the normal process wastewater at the dock sump, allowing adequate mixing time before entering the wastewater treatment system.

From the dock sump, the wastewater is pumped to rotary screens where coarse solids are removed. These coarse solids are processed along with the tuna scrap into fish meal. Following the screens, wastewater is pumped into a surge tank, and then to a pressure tank. In the pressure tank chemicals and compressed air are injected into the wastewater to aid the DAF process. The wastewater then enters the DAF following a series of expansion valves.

In the DAF, the previously injected chemicals pull the solids together to form a floc and compressed air in the water expands to create bubbles that float the floc to the top of the DAF. Scraper arms on the DAF surface collect the floc and skim it into a sludge tank. Clean water flows from the DAF to a flume where temperature and pH are monitored and pH adjusted as needed. Finally, the treated effluent flows to the discharge pipeline. The DAF sludge will be de-watered, combined with tuna scrap and processed into fish meal.

During the week where the modified process is used, GRAS (generally recognized as safe) approved polymers will be used: a polyamine (PWC720) and a cationic emulsion (PWC731). The polymers will be obtained from Pacific Water Consultants.

This modified process is the same used during a two week test period in July 2001. We propose to follow the same effluent monitoring scheme described in your May 10, 2001 letter approving the test. Results of the testing showed that all discharge parameters can be met with the exception of nitrogen and phosphorus.

Condition of F/V Tasman Sea

Some people have expressed concern about the condition of the F/V Tasman Sea and its ability to fulfill the requirements of the Ocean Dumping Permit. Although we believe the vessel can be repaired sufficiently to meet its obligations through the end of the current contract (June 2002), we have requested Blue North develop a back-up plan.

We are also doing research of our own to identify a backup vessel in the event the F/V Tasman Sea is not capable of fulfilling its mission. Be assured that StarKist, in cooperation with Samoa Packing, is investigating both near-term and longer-term options to adequately meet the requirements of the Ocean Dumping Permit.

Thank you for your consideration of this request, and we look forward to hearing from you soon. Please contact me should you have any questions or require additional information.

Sincerely,

STARKIST SAMOA, INC.

PHIL THIRKELL
General Manager

/tl

cc: Peter Peshut, ASEPAS
John Brown, H. J. Heinz

*** ACTIVITY REPORT ***

TRANSMISSION OK

TX/RX NO. 8334

CONNECTION TEL 90116846442290

CONNECTION ID

START TIME 12/21 10:15

USAGE TIME 01'32

PAGES 2

RESULT OK

*** ACTIVITY REPORT ***

TRANSMISSION OK

TX/RX NO.	8333
CONNECTION TEL	90116846442440
CONNECTION ID	
START TIME	12/21 10:10
USAGE TIME	01'30
PAGES	2
RESULT	OK



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
Pacific Insular Areas Program
75 Hawthorne Street
San Francisco, CA 94105

December 21, 2001

Phil Thirkell
General Manager
StarKist Samoa, Inc.
PO Box 368
Pago Pago, AS 96799

RE: NPDES Permit AS002001- Effluent Modification Testing

Dear Mr. Thirkell:

I write in response to your letter, dated December 13, 2001, requesting a time period of January 6, 2002 through January 19, 2002 to allow the discharge of your wastewater whose composition has been changed to include 100,000 gallons of high strength waste. The basis of your request is that The F/V Tasman Sea must undergo ship repair, and that the disposal of high strength waste at the designated ocean dumping site is not possible while the ship is undergoing repairs.

Your request, as described in your letter, is approved, and I hope the F/V Tasman Sea will be seaworthy by January 19, 2002. However, please be advised that if the F/V Tasman Sea is unable to resume duties after January 19, 2002, StarKist will need to implement their, or Blue North's, backup plan for disposal of your high strength waste, at that time. The backup plan must be in conformance with USEPA and ASEPA law and regulations.

The following sampling and monitoring of effluent wastewater will be conducted by StarKist during the period of January 6 - 19, 2002.

<u>Effluent Parameter</u>	<u>Frequency</u>
TSS	2 times daily
Oil & Grease	2 times daily
Total Nitrogen	2 times daily
Total Phosphorus	2 times daily
Ammonia	2 times daily
BOD (5-day)	1 time daily
Copper	2 times/week
Zinc	2 times/week
Flow, pH, Temp	continuously

Please advise us of your actual start and stop dates, and a copy of the results of your sampling and monitoring program.

If you have any questions, please let me know (goldstein.carl@epa.gov; fax: 415-947-3560; ph: 415-972-3767).

Carl L. Goldstein

A handwritten signature in black ink, appearing to read "Carl L. Goldstein", written over a horizontal line.

American Samoa Program Manager
Pacific Insular Area Programs

cc: ASEPA



December 14, 2001

Carl Goldstein
American Samoa Program Manager
U.S. Environmental Protection Agency, Region IX
CMD - 5
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Goldstein:

COS Samoa Packing Company is advised by Blue North Fisheries (operator of the joint-cannery ocean dumping vessel) that four weeks are required to complete repairs to the vessel *Tasman Sea*. Dry-dock is scheduled to commence on Dec. 22, 2001. The vessel will return to service no later than Jan. 19, 2002. Our cannery has scheduled a shutdown for the period Dec. 22 - Jan. 05. The period from Jan. 06 - Jan. 19 are scheduled production weeks for COS, in anticipation of a USDA packing contract.

We request permission to operate during the period of Jan. 06 - Jan. 19. After discussions with Starkist Samoa Inc.'s engineering staff, and Peter Peshut, ASEPA Technical Services Manager, we ask permission to partially duplicate the modified wastewater treatment procedure used by Starkist for their waste pilot study. The pilot study was completed in July of this year. Their procedure processed high-strength waste through the DAF and recovered the sludge for processing through the meal plant. Using their procedure we can continue cannery operations during the two additional weeks required for boat repairs. This will allow us to meet our contract obligations.

We propose to duplicate the Starkist modified wastewater process, with one exception. COS will store DAF sludge rather than process it through the meal plant. COS does not have an oil recovery decanter and centrifuge operation, and therefore, our high-strength waste is not efficient for meal production. We propose to store DAF sludge in our onshore high-strength waste storage tank. Tank capacity is 180,000 gals. Starkist provided us with documentation that shows they produced 4500 - 8000 gal. of sludge per day during the July trial period (see attached). At this production rate there is ample sludge storage capacity for the proposed modified operations period. COS processes approximately 100 fewer tons of fish per day than Starkist, so there appears to be a substantial margin of safety for sludge storage.

To further reduce sludge production, COS will process 100 tons per day of loin fish, and 210 tons per day of round fish, for the week of Jan. 06 - Jan. 12. We will process 420 tons of round fish per day for the week of Jan. 13 - Jan. 19.

As we will not process our sludge through the meal plant, this eliminates the need for GRAS polymers. We propose to maintain our usual 2-polymer treatment regime, at increased dosage rates.

Our water treatment consultant, Mr. Bob Cunningham of Chemisis Inc. ran jar tests on the modified process and made recommendations for polymer dosage rates. Jar test results are attached.

Wastewater flow diagrams are attached to show piping and valve changes that are required for the modified wastewater process. Piping modifications are minor, and will be completed by Jan 06, 2002.

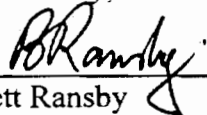
Enhanced effluent monitoring will be performed during the two-week period. The effluent will be monitored according to the testing regime used by Starkist during their July modified process period. See testing regime attached.

Our high-strength waste tank will be cleaned on Dec. 15 & 16, per our tank cleaning action plan. We will use the *Tasman* to empty the tank by Dec. 22, the start of our shutdown period. The *Tasman* will then have time to clean its tanks before dry-dock.

We recognize that we must hold high-strength waste for a period of two weeks. To manage the sludge, we will add 10,000 gals. of water to the tank before fish processing begins. Live steam injection will be maintained throughout each week of production. Continuous live steam injection will sterilize the sludge and eliminate odor-producing bacteria. Condensate from the steam will help maintain sludge fluidity. Shortly before the *Tasman* is available for service, the tank will be topped off with water and heated to approximately 190° F before pumping to the boat.

Thank you for considering our proposal. Should your decision be favorable, we are committed to responsible and reliable operation of the modified wastewater treatment process during the two-week period.

Yours truly,


Brett Ransby
Plant Engineering Manager

Cc: File/E7000

Herman Gebauer, COS Samoa Packing Company,
Jim Cox, COSINTL.
Peter Peshut, ASEPA

StarKist Samoa, Inc.



A Division of Star-Kist Foods, Inc.

P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799

Telephone: 684 644-4231
Facsimile: 684 644-2440

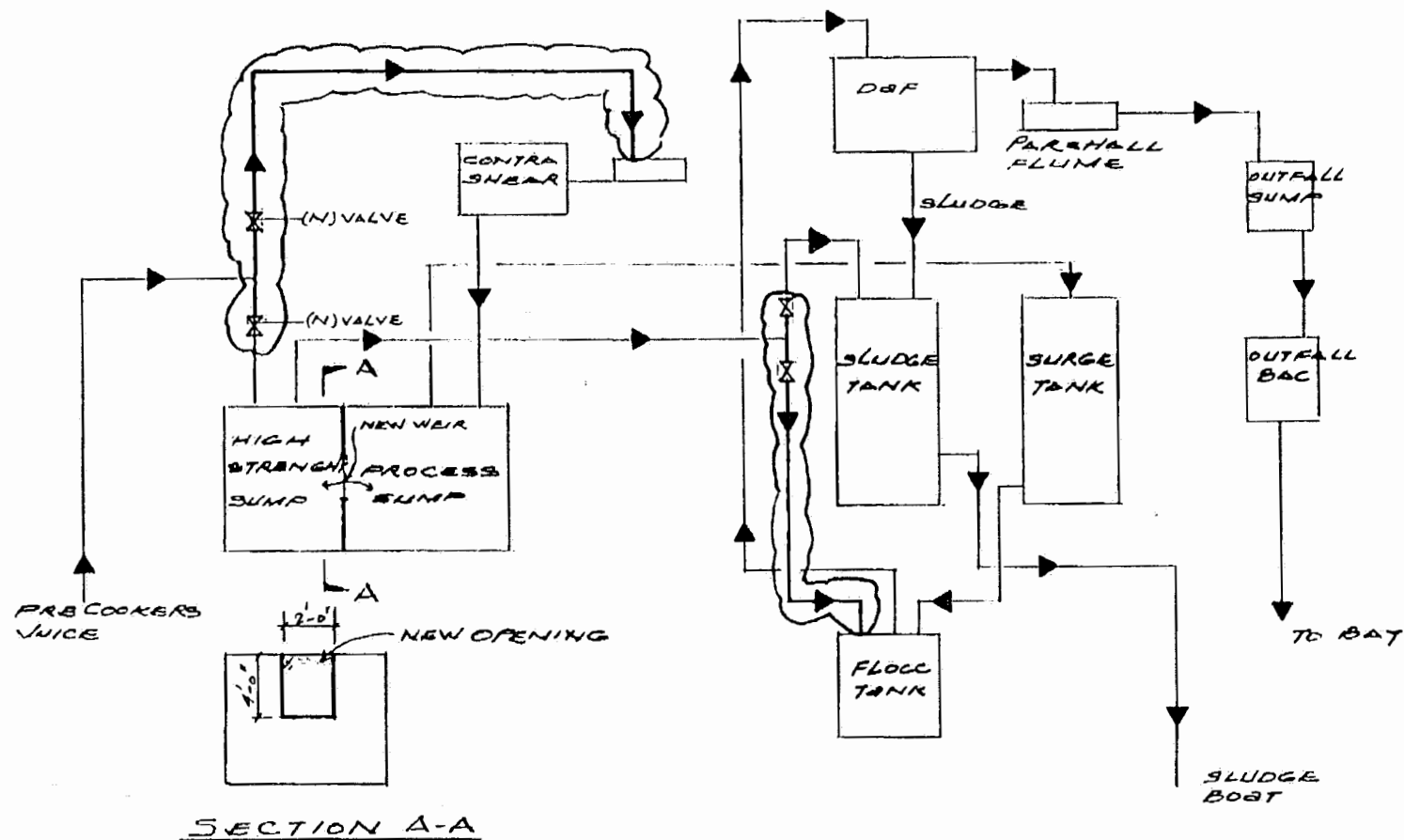
December 7 - 01

**Mr. Brett Ransby
C.O.S.**

This letter is to confirm our conversation on 12-6-01. During the wastewater treatment pilot test combining normal DAF flow with precooker water and press liqueur conducted in July. The DAF sludge produced using the new chemicals along with running a thicker sludge blanket on the DAF averaged 6,000 gallons per day with a high of 8,000 gallons and a low of 4,500 gallons.

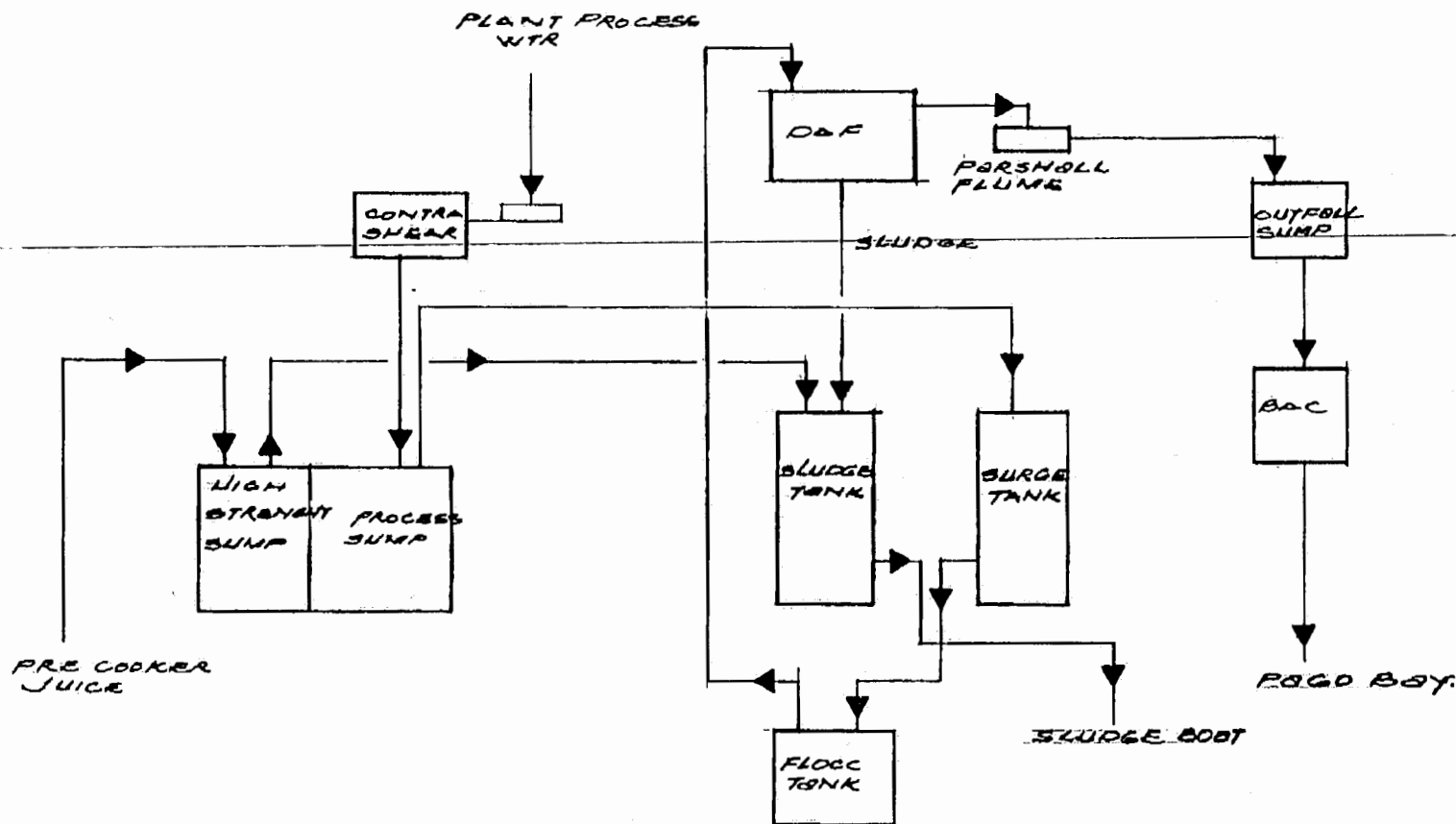
Joe Carney


**Utilities Dept. Head
StarKist Samoa**



① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩			COS SAMOA PACKING COMPANY ENGINEERING DEPT. PAGO PAGO, AMERICAN SAMOA PLANT BLDG.		
REVISION BY DATE			DATE DEC 14/01 TWECCO No. 1-1 DRAWING No.		
MADE BY PAUL			SAM-4108-01		
SCALE N/B PRINTED					

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COS SAMOA PACKING COMPANY	
ENGINEERING DEPT.	PAGO PAGO, AMERICAN SAMOA
PLANT	BLDG.
EXISTING	
SAMPAC WWT FLOW	
DATE: 12/14/01	TRANCE NO: 1-1
MADE BY: PAUL	DRAWING NO:
SCALE: NTE	PRINTED: SAM-N107-01

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CHEMISIS, INC.

FAX MEMO:

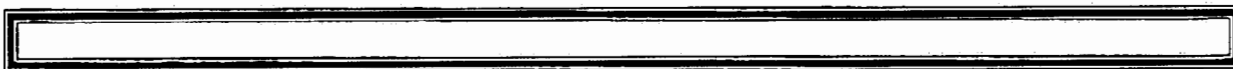
DATE: December 12, 2001

TO: COSI, Samoa packing Co.
ATTN: Mr Brett Ransby, Mgr. Of Engineering

FROM: Bob Cunningham

PAGES: 2, including this cover page.

SUBJECT: Waste Water Studies - DAF Bench Scale Simulation 12/07/01



Dear Mr. Ransby;

During my recent visit to Samoa we met with your local EPA representative and the engineering management personnel from Starkist, Samoa. The purpose of this meeting was to determine how best to operate the cannery waste water systems during the brief but necessary sludge boat outage at the end of the upcoming Holiday shutdown. The objective is to optimize effluent quality in order to minimize contamination of the sludge mixing zone during this period when high strength waste water will be present in the outfall. Our expectation has been that while we can do a good job of solids and O&G removal, we will not be able to meet permit conditions with respect to soluble TKN, and phosphorous.

You previously operated your waste water system in Samoa for several years using your existing chemical treatment and control program without segregating your high strength wastes. At that time you were able to meet current daily and monthly average outfall parameter limits with respect to TSS & Oil & Grease. This remained true until your TKN & Total Phosphorous limits were reduced in your effluent in order to reduce nutrient loading on your reef. We were unable to find a practical physical/chemical/biological treatment method that would provide adequate removal of this soluble phosphorous and nitrogen without providing additional downstream unit processes that were impractical given your space and cost constraints.

At that time your discharge permit was modified to allow disposal of the high

● Page 2

December 13, 2001

strength waste water along with the DAF sludge, via the sludge boat, at an offshore mixing zone that was able to absorb the additional nutrient loading.

You also have had additional identical experience at your Terminal Island, CA plant, where high strength waste was not segregated, and the final outfall was discharged to an L.A. Sanitary Authority interceptor. Again, TSS and O&G were easily removed through the DAF using chemical coagulants. The same treatment program has been employed until the plant recently closed.

After our previously mentioned meeting on Wed., Dec. 5th, you decided to have me conduct some bench scale simulations on your waste water, using the anticipated mixture of high strength waste water and your current polymer program. I completed the balance of my work in the plant with your boilers and cooling systems on Wednesday afternoon and Thursday while a composite sample was collected, and ran the jar tests on Friday morning.

The synthesized waste water treated consisted of a mixture of one part of high strength waste water combined with nine parts of regular DAF influent. We collected a composite sample of your normal DAF Influent using your normal composite sample procedure, beginning on Wednesday night at midnight. This waste was mixed with an appropriate amount of high strength waste. The sample was treated with your normal two polymer treatment program using the upper end of the rate that is normally employed.

The following results were achieved:

<u>Treatment Dosage</u>		<u>Results</u>				
<u>#8356</u>	<u>#8356</u>	<u>TSS</u>	<u>O&G</u>	<u>TKN</u>	<u>NH₃</u>	<u>TP</u>
30mg/l	7.6 mg/l	102	36.2	305.9	72	11.4

The liquid phase of the final treated sample exhibited very slight coloration and haze, with almost no pinpoint floc.

These results confirm what we have repeatedly observed in the past. We are able to remove large amounts of solids and oil using the DAF supplemented with coagulants. We are unable to achieve good removal of the largely soluble phosphorous and nitrogen.

It interesting to note that a different polymer program appears to be effective in the Starkist system. While we were unable to get samples of their program for jar test comparison, I have long term experience testing the waste water in both plants. This observation fits well with my past experience. I have repeatedly observed that different chemistry is normally needed in these two facilities. This is due the impact of process differences on the final effluent of these two canneries. I have found that the principal differences that cause this

● Page 3

December 13, 2001

variation in chemical requirements relate to variations in oil content and sea water content in the two wastes.

Starkist had recently completed extensive waste water treatment testing in conjunction with their recent efforts to recover DAF sludge in their fish meal product. You have previously looked at the possibility of such recovery over the years, and concluded to date that such recovery would not be possible given the fat content of your sludge, and your quality requirements that you impose on your meal product.

Thank you for this opportunity to be of service to Samoa Packing.

Regards,

Robert J. Cunningham, PE

Rjc/1877

cc: Mr. Cox, Mr. Gebauer

Brett Ransby

From: "Jim Cox" <jcox@cosintl.com>
To: "SAM Brett Ransby" <bransby@sampac.com>
Cc: "SAM Felicita Pepito" <FPepito@sampac.com>; "SAM George Scanlan" <GScanlan@sampac.com>
Sent: Monday, December 03, 2001 10:05 AM
Subject: Testing During Jan. 7 thru Jan 14

Per John Brown, we will have to report the following during the week that we are putting the high strength into meal:

3 times per day:

TSS
O&G
TKN
TP
Ammonia

Once per Day

BOD

Twice per Week

CU
ZN

Continuous

Flow
PH
Temp.

Please advise if the lab can do these.

12/14/2001

StarKist Samoa, Inc.

December 3, 2001

Mr. Carl L. Goldstein
US EPA Region 9
Pacific Insular Area Program {CMD-5}
75 Hawthorne Street
San Francisco, CA 04105

RE: Temporary Arrangement to Eliminate Ocean Dumping

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The high-strength wastewater consists of pre-cooker water and fish meal press liquor. Pre-cooker water is a combination of condensed steam from cooking the fish and city water sprayed on the cooked fish to cool them. Press liquor is the liquid waste produced by pressing cooked tuna scrap, prior to sending the scraps to the fish meal drier.

Under the modified process, both high-strength streams will be processed through the wastewater treatment system. The high-strength streams will be combined with the normal process wastewater at the dock sump, allowing adequate mixing time before entering the wastewater treatment system.

From the dock sump, the wastewater is pumped to rotary screens where coarse solids are removed. These coarse solids are processed along with the tuna scrap into fish meal. Following the screens, wastewater is pumped into a surge tank, and then to a pressure tank. In the pressure tank chemicals and compressed air are injected into the wastewater to aid the DAF process. The wastewater then enters the DAF following a series of expansion valves.

In the DAF, the previously injected chemicals pull the solids together to form a floc and compressed air in the water expands to create bubbles that float the floc to the top of the DAF. Scraper arms on the DAF surface collect the floc and skim it into a sludge tank. Clean water flows from the DAF to a flume where temperature and pH are monitored and pH adjusted as needed. Finally, the treated effluent flows to the discharge pipeline. The DAF sludge will be de-watered, combined with tuna scrap and processed into fish meal.

During the week where the modified process is used, GRAS (generally recognized as safe) approved polymers will be used: a polyamine (PWC720) and a cationic emulsion (PWC731). The polymers will be obtained from Pacific Water Consultants.

This modified process is the same used during a two week test period in July 2001. We propose to follow the same effluent monitoring scheme described in your May 10, 2001 letter approving the test. Results of the testing showed that all discharge parameters can be met with the exception of nitrogen and phosphorus.

Condition of F/V Tasman Sea

Some people have expressed concern about the condition of the F/V Tasman Sea and its ability to fulfill the requirements of the Ocean Dumping Permit. Although we believe the vessel can be repaired sufficiently to meet its obligations through the end of the current contract (June 2002), we have requested Blue North develop a back-up plan.

We are also doing research of our own to identify a backup vessel in the event the F/V Tasman Sea is not capable of fulfilling its mission. Be assured that StarKist, in cooperation with Samoa Packing, is investigating both near-term and longer-term options to adequately meet the requirements of the Ocean Dumping Permit.

Thank you for your consideration of this request, and we look forward to hearing from you soon. Please contact me should you have any questions or require additional information.

Sincerely,

STARKIST SAMOA, INC.

PHIL THIRKELL
General Manager

/tl

cc: Peter Peshut, ASEPAS
John Brown, H. J. Heinz

STARKIST SAMOA, INC.
P. O. BOX 368, PAGO PAGO, AMERICAN SAMOA 96799
TELEPHONE: 684/644-4231 PANAFAK: 684/644-2440

FACSIMILE TRANSMISSION

DATE: DECEMBER 3, 2001

FROM : PHIL THIRKELL'S OFFICE
 PANAFAK # (684) 644-2440

PAGES : COVER # 3 CLASSIFICATION: URGENT/CONFIDENTIAL

TO : CARL L. GOLDSTEIN, US EPA REGION 9, PACIFIC INSULAR AREA PROGRAM
(CMD-5), 75 Hawthorne Street

LOCATION: SAN FRANCISCO, CA 04105

PANAFAK : (415) 744-1604/1605

SUBJECT: TEMPORARY ARRANGEMENT TO ELIMINATE OCEAN DUMPING

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution of copying or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank you.

MESSAGE:

Original copy to follow.....

StarKist Samoa, Inc.



A Division of StarKist Foods, Inc.

P.O. Box 368

Pago Pago, Tutuila Island

American Samoa 96799

Telephone: 684 544-4231

Facsimile: 684 544-2440

December 13, 2001

Mr. Carl L. Goldstein
US EPA Region 9
Pacific Insular Area Program {CMD-5}
75 Hawthorne Street
San Francisco, CA 04105

RE: Temporary Arrangement to Eliminate Ocean Dumping (Revised)

Dear Mr. Goldstein:

StarKist Samoa has been requested to provide Blue North with a four week period during which the F/V Tasman Sea will be cleaned and repaired. The F/V Tasman Sea is the vessel used to haul and dispose high strength wastewater and DAF sludge pursuant to StarKist's Ocean Dumping Permit.

Due to required production levels StarKist can accommodate a maximum two weeks' downtime. In addition, two weeks' downtime is the longest period allowed under the agreement between StarKist and Blue North. However, due to the critical need to have a serviceable vessel to satisfy the requirements of the Ocean Dumping Permit, StarKist feels it necessary to accommodate Blue North's request.

Therefore, StarKist requests permission to process high-strength wastewater streams through the plant's wastewater treatment system, mixed with the regular process wastewater, for a period of two weeks. This will eliminate the need for ocean dumping services for this period. The modified process to be used is described below. Timeframe is as follows:

StarKist production downtime: 22-Dec-2001 through 05-Jan-2002

Modified wastewater process: 06-Jan-2002 through 19-Jan-2002

Modified Process

StarKist currently produces approximately 1,000,000 gallons per day of process wastewater and 100,000 gallons per day of high-strength wastewater. The high-strength wastewater is normally collected separately and disposed under the requirements of

StarKist's Ocean Dumping Permit, along with sludge produced by the DAF (dissolved air flotation) unit in the wastewater treatment system.

The high-strength wastewater consists of pre-cooker water and fish meal press liquor. Pre-cooker water is a combination of condensed steam from cooking the fish and city water sprayed on the cooked fish to cool them. Press liquor is the liquid waste produced by pressing cooked tuna scrap, prior to sending the scraps to the fish meal drier.

Under the modified process, both high-strength streams will be processed through the wastewater treatment system. The high-strength streams will be combined with the normal process wastewater at the dock sump, allowing adequate mixing time before entering the wastewater treatment system.

From the dock sump, the wastewater is pumped to rotary screens where coarse solids are removed. These coarse solids are processed along with the tuna scrap into fish meal. Following the screens, wastewater is pumped into a surge tank, and then to a pressure tank. In the pressure tank chemicals and compressed air are injected into the wastewater to aid the DAF process. The wastewater then enters the DAF following a series of expansion valves.

In the DAF, the previously injected chemicals pull the solids together to form a floc and compressed air in the water expands to create bubbles that float the floc to the top of the DAF. Scraper arms on the DAF surface collect the floc and skim it into a sludge tank. Clean water flows from the DAF to a flume where temperature and pH are monitored and pH adjusted as needed. Finally, the treated effluent flows to the discharge pipeline. The DAF sludge will be de-watered, combined with tuna scrap and processed into fish meal, or stored in the on-site sludge storage tank.

During the weeks where the modified process is used, GRAS (generally recognized as safe) approved polymers will be used: a polyamine (PWC720) and a cationic emulsion (PWC731). The polymers will be obtained from Pacific Water Consultants.

This modified process is the same used during a two week test period in July 2001. We propose to follow the same effluent monitoring scheme described in your May 10, 2001 letter approving the test. Results of the testing showed that all discharge parameters can be met with the exception of nitrogen and phosphorus.

Condition of F/V Tasman Sea

Some people have expressed concern about the condition of the F/V Tasman Sea and its ability to fulfill the requirements of the Ocean Dumping Permit. Although we believe the vessel can be repaired sufficiently to meet its obligation through the end of the current contract (June 2002), we have requested Blue North develop a back-up plan.


We continue our own research to identify a backup vessel in the event the F/V Tasman Sea is not capable of fulfilling its mission. Be assured that StarKist, in cooperation with

Samoa Packing, is investigating both near-term and longer-term options to adequately meet the requirements of the Ocean Dumping Permit.

Thank you for your consideration of this request, and we look forward to hearing from you soon. Please contact me should you have any questions or require additional information.

Sincerely,

STARKIST SAMOA INC.



PHIL THIRKELL
General Manager

/tl

cc: Peter Peshut, ASEPA
John Brown, H. J. Heinz



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX**

**75 Hawthorne Street
San Francisco, CA 94105**

August 12, 2002

Phil Thirkell
General Manager
StarKist Samoa, Inc.
PO Box 368
Pago Pago, AS 96799

Subject: Reporting of NPDES Monitoring Results, NPDES Permit No. AS0000019

Dear Mr. Thirkell:

I write in response to a request from your staff to clarify the reporting periods for submittal of NPDES discharge monitoring results for the subject permit.

Section M of the permit requires that monitoring results obtained during the previous 3 months be summarized for each month and submitted quarterly, and that the reports be postmarked no later than the 28th day of the month following the completed reporting period. The first report for your new permit was due 4 months after the effective date of your permit.

The effective date of your permit is January 23, 2001, therefore, the first 3 months would have ended on April 23, 2001, and the report due (postmarked) on May 28th, 2001.

As I recall, the above reporting period/dates were awkward as StarKist was already on a fiscal year quarterly reporting system. I seem to recall that we (EPA and StarKist) agreed that the reporting period for the new permit should continue with the existing reporting period(s) that were in place, and the DMR's submitted by the end of the month following the reporting period. The reporting periods are as follows:

1st Quarter: October - December
2nd Quarter: January - March
3rd Quarter: April - June
4th Quarter: July - September

The above fiscal year reporting system is preferable to EPA Region 9 and ASEPA, and I presume that it has been working for StarKist. Please confirm for me that these reporting periods for submittal of NPDES DMR's is acceptable to StarKist. {Also, please note that there are no issues regarding the submittal of NPDES DMR's to EPA Region 9.}

Thank you for time and attention to this matter. If you have any questions, please let me know, and please note the new contact information (goldstein.carl@epa.gov; ph: 415-972-3767; fax: 415-947-3560).

Sincerely,

A handwritten signature in cursive script, appearing to read "Carl L. Goldstein", followed by a horizontal line extending to the right.

Carl L. Goldstein
Program Manager

cc: ASEPA

STARKIST SAMOA, INC.
P. O. BOX 368, PAGO PAGO, AMERICAN SAMOA 96799
TELEPHONE: 684/644-4231 PANAFAX: 684/644-2440

FACSIMILE TRANSMISSION

DATE: DECEMBER 13, 2001

FROM : PHIL THIRKELL'S OFFICE
PANAFAX # (684) 644-2440

PAGES : COVER # 3 CLASSIFICATION: URGENT/CONFIDENTIAL

TO : CARL L. GOLDSTEIN, US EPA REGION 9, PACIFIC INSULAR AREA PROGRAM
(CMD-5), 75 Hawthorne Street

LOCATION: SAN FRANCISCO, CA 04105

PANAFAX : (415) 947-3560/ (414) 947-3591

SUBJECT: TEMPORARY ARRANGEMENT TO ELIMINATE OCEAN DUMPING (REVISED)

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution of copying or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank you.

MESSAGE:

Original copy to follow.....

**FORM
26
NPDES**



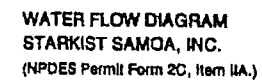
U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

OFFICIAL USE ONLY (effluent guidelines sub-categories)



WATER FLOW DIAGRAM
STARKIST SAMOA, INC.
(NPDES Permit Form 20, Item 11A.)

StarKist Samoa, Inc. - Outfall No. 001
EPA Form 2C NPDES - Item II.B
Table of Flows, Sources, and Treatment Technologies

Operations Contributing to Flow ¹		Percent of Flow ²		Treatment	
Item ³	Description	Total Process Flow	Flow Through Outfall	Description	Codes ⁴
a	Freezer Condensate	0.4	0.4	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B
b	Thaw Water + Can Washer + Boiler Blowdown	63.7	66.6	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B
c	Butchering	1.7	1.8	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B
d	Precooker	3.5	0.0	Ocean Disposal ⁵	
e	Spray Cooling	4.3	4.5	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B
f	Press Scrap Reduction	0.8	0.0	Ocean Disposal ⁵	
g	Can Washer + Boiler Blowdown	(included in b)		Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B
h	Washdown	25.6	26.7	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B

¹ See attached figure per item II.A (Form 2C).

² Permitted maximum daily flow is 2.9 mgd, average flow (April 2003 to March 2005) was 1.2 mgd, and maximum daily flow is 2.42 mgd.

³ Items referenced to figure attached per item II.A (Form 2C).

⁴ Codes from Table 2C-1 (Form 2C): 1-T = Screening; 1-H = Flotation; 2-C = Chemical Precipitation; 4-B = Ocean Discharge Through Outfall.

⁵ Barged to permitted offshore ocean dumping site - permit OD-93-01 Special

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES (complete the following table)☒ NO (go to Section III)

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW					
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. FLOW RATE (in mgd)		b. TOTAL VOLUME (specify with units)		c. DUR- ATION (in days)	
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY		

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES (complete Item III-B)☐ NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

☒ YES (complete Item III-C)☐ NO (go to Section IV)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (list outfall numbers)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	
564	tons/day	Tuna (Average, Feb 2001 - Mar 2005)	001
471-614	tons/day	Tuna (minimum - maximum, Feb 2001 - Mar 2005)	
592	tons/day	Tuna (Average, Apr 2003 - Mar 2005)	
560 - 613	tons/day	Tuna (minimum - maximum, Feb 2001 - Mar 2005)	
540	tons/day	Tuna (Future Projected)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste-water treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (complete the following table)☒ NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedule for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS**A, B, & C:** See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.**NOTE:** Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.**D.** Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None	All analytical data has been submitted to EPA under existing NPDES Permit Section D.2.		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ **YES** (list all such pollutants below)☒ **NO** (go to Item VI-B)

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ YES (Identify the test(s) and describe their purposes below)

☐ NO (go to Section VIII)

The NPDES Permit for discharge of the StarKist effluent requires semi-annual acute toxicity tests conducted on a 24-hour composite of both canneries effluent (StarKist Samoa and Samoa Packing) as they share the joint cannery outfall. The last test was conducted in March 2005 which was the ninth semi-annual test required by the current permits and the twenty-fifth test, over twenty-three semi-annual periods, conducted since testing of the discharge of effluent to the Joint Cannery Outfall began in 1993.

The permit conditions require that the bioassay tests be conducted with the white shrimp, *Penaeus vannamei* (postlarvae). In the event *Penaeus vannamei* is not available at the time of the tests, the permit specifies the substitute species, *Mysidopsis bahia*, which now has been renamed *Americamysis bahia*.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

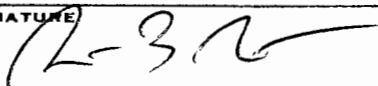
☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
AECOS	970 N. Kalaheo Ave., Suite C311 Kailua, HI 96734	(808) 254-5884	Copper and Zinc
Columbia Analytical Services	1317 South 13th Ave Kelso, WA 98626	360-577-7222	Priority Pollutants

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (type or print)	B. PHONE NO. (area code & no.)
Brett Butler, General Manager	684-644-1835
C. SIGNATURE	D. DATE SIGNED
	2/25/05

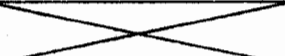
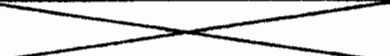
PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	5. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1)	(2) MASS	(1)	(2) MASS	(1)	(2) MASS				(1)	(2) MASS	
	CONCENTRATION		CONCENTRATION		CONCENTRATION					CONCENTRATION		
a. Biochemical Oxygen Demand (BOD)	602.0	8279 (1)	(2)	(2)	427.1	4,277 (3)	24	mg/l	lbs/day			
b. Chemical Oxygen Demand (COD)	1,400	26,755 (1)	(4)	(4)	(4)	(4)	1	mg/l	lbs/day			
c. Total Organic Carbon (TOC)	214	4,090 (1)	(4)	(4)	(4)	(4)	1	mg/l	lbs/day			
d. Total Suspended Solids (TSS)	388.7 (5)	4,939.4 (6)	190.0	2,422.7	101.6	1,330 (3)	94	mg/l	lbs/day			
e. Ammonia (as N)	44.7	539.7 (1)	40.2	491.2 (7)	24.8	248.4 (3)	94	mg/l	lbs/day			
f. Flow	VALUE 2.42 (8)		VALUE 1.56		VALUE 1.20		731	N/A	mgd	VALUE		
g. Temperature (winter)	VALUE 38		VALUE 33 (9)		VALUE 29 (9)		731	°C		VALUE		
h. Temperature (summer)	VALUE (10)		VALUE (10)		VALUE (10)		----	°C		VALUE		
i. pH	MINIMUM 6.5	MAXIMUM 8.4 (11)	MINIMUM (12)	MAXIMUM (12)			731	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUT- ANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. BE- LIEVED PRE- SENT	b. BE- LIEVED AB- SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANAL- YSES	a. CONCENT- TRATION	b. MASS	5. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X		21.1						1	mg/l				
b. Chlorine, Total Residual		X												
c. Color	X		(1)											
d. Fecal Coliform		X												
e. Fluoride (16964-48-8)	X		(2)											
f. Nitrate- Nitrite (as N)	X		(3)											

ITEM V-8 CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. RECEIVED SENT	b. RECEIVED SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANAL- YSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANAL- YSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (as N)	X		99.0 (4)	1,497.7	83.8	1,174.2	69.9	925.8	188	mg/l	lbs/day			
h. Oil and Grease	X		119.8 (5)	1,665.4	62.9	843.2	28.5	374.2	24	mg/l	lbs/day			
i. Phosphorus (as P), Total (7723-14-0)	X		16.6 (6)	235.8	13.6	189.0	12.0	158.9	188	mg/l	lbs/day			
j. Radioactivity											lbs/day			
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (as SO ₄) (14808-79-8)	X		933						1	mg/l				
l. Sulfide (as S)	X		4.87						1	mg/l				
m. Sulfite (as SO ₃) (14265-45-3)	X		55						1	mg/l				
n. Surfactants	X		0.07						1	mg/l				
o. Aluminum, Total (7429-90-5)	X		918						1	ug/l				
p. Barium, Total (7440-39-3)	X		5.5						1	ug/l				
q. Boron, Total (7440-42-8)	X		1,820						1	ug/l				
r. Cobalt, Total (7440-48-4)		X	ND						1	ug/l				
s. Iron, Total (7439-89-6)	X		321						1	ug/l				
t. Magnesium, Total (7439-95-4)	X		(7)											
u. Molybdenum, Total (7439-98-7)		X	ND						1	ug/l				
v. Manganese, Total (7439-96-5)	X		22						1	ug/l				
w. Tin, Total (7440-31-5)		X	ND						1	ug/l				
x. Titanium, Total (7440-32-6)	X		6.1 B						1	ug/l				

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
--	----------------

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X'			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TEST-ING RE-QUIRED	b. BE-LIEVED PRE-SENT	c. BE-LIEVED AB-SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c. LONG TERM AVG. VALUE (If available)		d. NO. OF ANAL-YSES	a. CONCENTRATION	b. MASS	e. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
METALS, CYANIDE, AND TOTAL PHENOLS																
1M. Antimony, Total (7440-36-0)		X		44.5 B						1	ug/l					
2M. Arsenic, Total (7440-38-2)		X		17.5 B						1	ug/l					
3M. Beryllium, Total (7440-41-7)			X	ND						1	ug/l					
4M. Cadmium, Total (7440-43-9)		X		8.6						1	ug/l					
5M. Chromium, Total (7440-47-3)			X	ND						1	ug/l					
6M. Copper, Total (7440-50-8)		X		346 (8)		(9)	(9)	36.5	0.37	24	ug/l	lbs/day				
7M. Lead, Total (7439-92-1)			X	ND						1	ug/l					
8M. Mercury, Total (7439-97-6)		X		0.27						1	ug/l					
9M. Nickel, Total (7440-02-0)			X	ND						1	ug/l					
10M. Selenium, Total (7782-49-2)		X		5.6 B						1	ug/l					
11M. Silver, Total (7440-22-4)			X	ND						1	ug/l					
12M. Thallium, Total (7440-28-0)			X	ND						1	ug/l					
13M. Zinc, Total (7440-66-6)		X		2,650 (10)		(11)	(11)	331.5	3.32	24	ug/l	lbs/day				
14M. Cyanide, Total (57-12-5)			X	ND						1	ug/l					
15M. Phenols, Total		X		0.32						1	ug/l					
DIOXIN																
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1784-01-6)			X	DESCRIBE RESULTS												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. TEST-ING RE-QUIR-ED	B. SE-LIEVED PRE-SENT	C. SE-LIEVED AB-SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANAL-YSES	a. CONCENTRATION	b. MASS	e. LONG TERM AVERAGE VALUE		d. NO. OF ANAL-YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			X	ND						1	ug/l				
2V. Acrylonitrile (107-13-1)			X	ND						1	ug/l				
3V. Benzene (71-43-2)			X	ND						1	ug/l				
4V. Bis (Chloro-methyl) Ether (542-88-1)			X	ND						1	ug/l				
5V. Bromoform (75-25-2)			X	ND						1	ug/l				
6V. Carbon Tetrachloride (56-23-5)			X	ND						1	ug/l				
7V. Chlorobenzene (108-90-7)			X	ND						1	ug/l				
8V. Chlorodi-bromomethane (124-48-1)			X	ND						1	ug/l				
9V. Chloroethane (75-00-3)			X	ND						1	ug/l				
10V. 2-Chloro-ethylvinyl Ether (110-75-8)			X	ND						1	ug/l				
11V. Chloroform (67-66-3)			X	ND						1	ug/l				
12V. Dichloro-bromomethane (75-27-4)			X	ND						1	ug/l				
13V. Dichloro-difluoromethane (75-71-8)			X	ND						1	ug/l				
14V. 1,1-Dichloro-ethane (75-34-3)			X	ND						1	ug/l				
15V. 1,2-Dichloro-ethane (107-06-2)			X	ND						1	ug/l				
16V. 1,1-Dichloro-ethylene (75-35-4)			X	ND						1	ug/l				
17V. 1,2-Dichloro-propane (78-87-5)			X	ND						1	ug/l				
18V. 1,3-Dichloro-propylene (542-75-6)			X	ND						1	ug/l				
19V. Ethylbenzene (100-41-4)			X	ND						1	ug/l				
20V. Methyl Bromide (74-83-9)			X	ND						1	ug/l				
21V. Methyl Chloride (74-87-3)			X	ND						1	ug/l				

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	TESTING RE- QUIR- ED	D. RE- LIEVED PRE- SENT	C. RE- LIEVED AS- SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANAL- YSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANAL- YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)			X	ND						1	ug/l				
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	ND						1	ug/l				
24V. Tetrachloroethylene (127-18-4)			X	ND						1	ug/l				
25V. Toluene (108-88-3)		X		0.30 J						1	ug/l				
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	ND						1	ug/l				
27V. 1,1,1-Trichloroethane (71-55-6)			X	ND						1	ug/l				
28V. 1,1,2-Trichloroethane (79-00-5)			X	ND						1	ug/l				
29V. Trichloroethylene (79-01-6)			X	ND						1	ug/l				
30V. Trichlorofluoromethane (75-69-4)			X	ND						1	ug/l				
31V. Vinyl Chloride (75-01-4)			X	ND						1	ug/l				
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	ND						1	ug/l				
2A. 2,4-Dichlorophenol (120-83-2)			X	ND						1	ug/l				
3A. 2,4-Dimethylphenol (105-67-9)			X	ND						1	ug/l				
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	ND						1	ug/l				
5A. 2,4-Dinitrophenol (51-28-5)			X	ND						1	ug/l				
6A. 2-Nitrophenol (88-75-5)			X	ND						1	ug/l				
7A. 4-Nitrophenol (100-02-7)			X	ND						1	ug/l				
8A. P-Chloro-M-Cresol (59-50-7)			X	ND						1	ug/l				
9A. Pentachlorophenol (87-86-5)			X	ND						1	ug/l				
10A. Phenol (105-90-2)		X		220						1	ug/l				
11A. 2,4,6-Tri-chlorophenol (87-61-2)			X	ND						1	ug/l				

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TEST ING RE- QUIR- ED	b. SE- LIEVED PRE- SENT	c. SE- LIEVED AB- SENT	8. MAXIMUM DAILY VALUE		d. MAXIMUM 30 DAY VALUE (if available)		e. LONG TERM AVG. VALUE (if available)		d. NO. OF ANAL- YSES	8. CONCENTRATION	b. MASS	8. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	ND						1	ug/l				
2B. Acenaphthylene (208-96-8)			X	ND						1	ug/l				
3B. Anthracene (120-12-7)			X	ND						1	ug/l				
4B. Benzidine (92-87-5)			X	ND						1	ug/l				
5B. Benzo (a) Anthracene (56-55-3)			X	ND						1	ug/l				
6B. Benzo (a) Pyrene (50-32-8)			X	ND						1	ug/l				
7B. 3,4-Benzo- fluoranthene (205-99-2)			X	ND						1	ug/l				
8B. Benzo (ghi) Perylene (191-24-2)			X	ND						1	ug/l				
9B. Benzo (k) Fluoranthene (207-08-9)			X	ND						1	ug/l				
10B. Bis (2-Chloro- ethoxy) Methane (111-91-1)			X	ND						1	ug/l				
11B. Bis (2-Chloro- ethyl) Ether (111-44-4)			X	ND						1	ug/l				
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)			X	ND						1	ug/l				
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			X	ND						1	ug/l				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	ND						1	ug/l				
15B. Butyl Benzyl Phthalate (85-68-7)			X	ND						1	ug/l				
16B. 3-Chloronaphthalene (91-58-7)			X	ND						1	ug/l				
17B. 4-Chlorobenzophenyl Ether (7005-72-3)			X	ND						1	ug/l				
18B. Chrysene (218-01-6)			X	ND						1	ug/l				
19B. Dibenzo (a,h) Anthracene (83-70-3)			X	ND						1	ug/l				
20B. 1,2-Dichlorobenzene (95-50-1)			X	ND						1	ug/l				
21B. 1,3-Dichlorobenzene (541-73-1)			X	ND						1	ug/l				

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TEST ING RE- QUIR- ED	b. BE- LIEVED PRE- SENT	c. BE- LIEVED AB- SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANAL- YSES	e. CONCENTRATION	f. MASS	g. LONG TERM AVERAGE VALUE		h. NO. OF ANAL- YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (continued)															
228. 1,4-Dichloro- benzene (106-46-7)			X	ND						1	ug/l				
238. 3,3'-Dichloro- benzidine (61-64-1)			X	ND						1	ug/l				
248. Diethyl Phthalate (84-66-2)			X	ND						1	ug/l				
258. Dimethyl Phthalate (84-69-1)			X	ND						1	ug/l				
268. Di-N-Butyl Phthalate (84-74-2)			X	ND						1	ug/l				
278. 2,4-Dinitro- toluene (121-14-2)			X	ND						1	ug/l				
288. 2,6-Dinitro- toluene (806-20-2)			X	ND						1	ug/l				
298. Di-N-Octyl Phthalate (117-84-0)			X	ND						1	ug/l				
308. 1,2-Diphenyl- hydrazine (as Azo- benzene) (122-66-7)			X	ND						1	ug/l				
318. Fluoranthene (208-44-0)			X	ND						1	ug/l				
328. Fluorene (86-73-7)			X	ND						1	ug/l				
338. Hexachlorobenzene (118-74-1)			X	ND						1	ug/l				
348. Hexa- chlorobutadiene (87-68-3)			X	ND						1	ug/l				
358. Hexachloro- cyclopentadiene (77-47-4)			X	ND						1	ug/l				
368. Hexachloro- ethane (67-72-1)			X	ND						1	ug/l				
378. Indeno (1,2,3-cd) Pyrene (193-39-5)			X	ND						1	ug/l				
388. Isophorone (78-59-1)			X	ND						1	ug/l				
398. Naphthalene (91-20-3)			X	ND						1	ug/l				
408. Nitrobenzene (98-95-3)			X	ND						1	ug/l				
418. N-Nitro- sodimethylamine (62-78-9)			X	ND						1	ug/l				
428. N-Nitrosodi- N-Propylamine (621-84-7)			X	ND						1	ug/l				

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CONTINUED FROM THE FRONT																
1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X'			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	a. TEST- ING RE- QUIR- ED	b. SE- LIEVED PRE- SENT	c. SE- LIEVED AB- SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c. LONG TERM AVG. VALUE (If available)		d. NO. OF ANAL- YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL- YSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)																
43B. N-Nitro- sodiphenylamine (86-30-6)			X	ND						1	ug/l					
44B. Phenanthrene (85-01-8)			X	ND						1	ug/l					
45B. Pyrene (129-00-0)			X	ND						1	ug/l					
46B. 1,2,4-Tri- chlorobenzene (120-82-1)			X	ND						1	ug/l					
GC/MS FRACTION - PESTICIDES																
1P. Aldrin (309-00-2)			X	ND						1	ug/l					
2P. α -BHC (319-84-6)			X	ND						1	ug/l					
3P. β -BHC (319-85-7)			X	ND						1	ug/l					
4P. γ -BHC (58-69-9)			X	ND						1	ug/l					
5P. δ -BHC (319-86-8)			X	ND						1	ug/l					
6P. Chlordane (57-74-9)			X	ND						1	ug/l					
7P. 4,4'-DDT (50-29-3)			X	ND						1	ug/l					
8P. 4,4'-DDE (72-55-9)			X	ND						1	ug/l					
9P. 4,4'-DDD (72-54-8)			X	ND						1	ug/l					
10P. Dieldrin (60-57-1)			X	ND						1	ug/l					
11P. α -Endosulfan (115-29-7)			X	ND						1	ug/l					
12P. β -Endosulfan (115-29-7)			X	ND						1	ug/l					
13P. Endosulfan Sulfate (1031-07-8)			X	ND						1	ug/l					
14P. Endrin (72-20-8)			X	ND						1	ug/l					
15P. Endrin Aldehyde (7421-93-4)			X	ND						1	ug/l					
16P. Heptachlor (76-44-8)			X	ND						1	ug/l					

CONTINUED FROM PAGE V-8

CONTINUED FROM PAGE 7-5

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	d. MAXIMUM DAILY VALUE		e. MAXIMUM 30 DAY VALUE (if available)		f. LONG TERM AVG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	g. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION -- PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X	ND						1	ug/l				
18P. PCB-1242 (83469-21-9)			X	ND						1	ug/l				
19P. PCB-1254 (11097-69-1)			X	ND						1	ug/l				
20P. PCB-1221 (11104-28-2)			X	ND						1	ug/l				
21P. PCB-1232 (11141-16-5)			X	ND						1	ug/l				
22P. PCB-1248 (12672-29-6)			X	ND						1	ug/l				
23P. PCB-1260 (11098-82-5)			X	ND						1	ug/l				
24P. PCB-1016 (12674-11-2)			X	ND						1	ug/l				
25P. Toxaphene (8001-35-2)			X	ND						1	ug/l				

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Notes

Section V, Part A

General Notes: Information presented in this section is based on 24 months of data from April 2003 through March 2005 unless otherwise noted. This time period is representative of current discharge based on daily production numbers (see Technical Support Document).

- (1) Mass loading estimated based on the average daily flow on the day the samples were collected. This applies to reported values for BOD, COD, and TOC.
- (2) BOD samples only collected one day per month.
- (3) Long-term average loading calculations were based on long-term average flow.
- (4) COD and TOC concentrations reported are based on single measurements.
- (5) Maximum TSS concentration value (388.7 mg/l) reported is more than 3 standard deviations above the mean, which is an obvious outlier. The next highest value reported was 258 mg/l.
- (6) Maximum TSS loading value reported (4939.4 lbs/day) is more than 3 standard deviations above the mean, which is an obvious outlier. The next highest value reported was 3125.8 lbs/day.
- (7) Maximum monthly average ammonia loading based on daily flows recorded for the three days ammonia was measured.
- (8) Maximum daily flow was more than three standard deviations above the mean and is anomalous. The next highest value reported was 2.00 mgd for the 24-month period considered and 2.09 the entire permit period through March 2005 (51 months).
- (9) Long term average and monthly temperature values are the averages of the daily maximum temperatures for the respective periods.
- (10) The discharge is in a tropical setting and there is no discernable seasonal difference in effluent temperature.
- (11) The maximum pH value of 8.4 is more than three standard deviations above the mean and appears to be an outlier. The next highest value reported was 7.7.
- (12) Monthly averages were not calculated. Daily values were submitted with DMR's.

Notes

Section V, Part B and C

General Notes: The table below indicates the explanation of the data qualifiers given in Section V, Part B and C. With the exception of data provided for nitrogen, oil and grease, and phosphorus, all data is from a priority pollutant analysis of a 24-hr composite effluent sample collected in September 2004. The priority pollutant scan of effluent is stipulated in Section D.2 of the StarKist Samoa NPDES Permit No. AS 0000019.

Data Qualifiers for StarKist Samoa Effluent		
Constituents	Symbol	Interpretation
All	ND	The compound was analyzed for, but was not detected at or above the MRL/MDL (Method Reporting Limit or the Method Detection Limit)
	ug/l	Unit is actually µg/l, text formatting can't be changed in Form 2C *.pdf file.
Metals	B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL

(1) Color is known to be present at low levels but is not considered an important parameter. No analyses have been conducted within the period of the current permit. A color measurement made during the first permit period was reported as <10 ACPU.

(2) Flouride is believed present, even though not tested, as fluoride is a major constituent of seawater. StarKist Samoa uses seawater for thaw water, which is then discharged with the effluent, into seawater.

(3) StarKist Samoa does not measure Nitrate-Nitrite (as N) but rather regularly measures Total Kjeldahl Nitrogen (TKN) and Ammonia, which is reported on the DMRs.

(4) The values reported are for Total Nitrogen. The values provided for nitrogen are from the DMRs and do not include the single value measured in the September 2004 priority pollutant analysis.

(5) Oil and Grease measured in StarKist Samoa's effluent is from organic fish material and not from petroleum based oil and grease. The values provided for oil

and grease are from the DMRs and do not include the single value measured in the September 2004 priority pollutant analysis.

(6) The values provided for phosphorus are from StarKist Samoa DMRs and do not include the single value measured in the September 2004 priority pollutant analysis.

(7) Total magnesium was not tested in the September 2004 priority pollutant analysis. Magnesium is present in StarKist Samoa's effluent as it is a minor constituent in seawater which is used as thaw water and then is discharged with the effluent, into the seawater receiving water.

(8) The value reported for copper (346 µg/l) is an outlier as it is more than 3 standard deviations from the mean (36.5 µg/l). The next highest copper value is 100.0 µg/l.

(9) The value reported for zinc (2650 µg/l) is an outlier as it is more than 3 standard deviations from the mean (331.5 µg/l). The next highest zinc value is 351.1 µg/l.



Alexis Strauss
Director
Water Division
EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: NPDES Permit Renewal Application for StarKist Samoa (AS0000019)

Dear Director Strauss:

Enclosed please find completed Form 1 and Form 2C for the renewal of the existing NPDES Permit for StarKist Samoa, which expires on January 23, 2006. StarKist Samoa has performed a substantial and significant amount of effluent and receiving water monitoring during the term of the existing permit. Based on these data StarKist Samoa believes the current level of monitoring can be reduced without compromising the purpose of the monitoring. The proposed level of future monitoring will continue to maintain an appropriate level of environmental protection for the receiving water. Based on the monitoring data StarKist Samoa recommends that the renewal permit conditions be established as described below in this letter.

Our consultant, CH2M HILL, is preparing a comprehensive review of these data and a Technical Support Document supporting these recommendations will be provided to you and to American Samoa Environmental Protection Agency. This document will also support the application for a Water Quality Certificate and Definition of Mixing Zones that will be submitted to the American Samoa Environmental Quality Commission prior to 120 days before the current NPDES permit expires.

Outfall Description

StarKist Samoa and Samoa Packing canneries, in American Samoa, discharge treated fish process wastewater (without the high strength waste component) through a shared single outfall and diffuser, the Joint Cannery Outfall (JCO). The JCO is located in Pago Pago Harbor approximately 8400 feet seaward from the previous cannery discharge points and began operation in February 1992. The JCO terminates in a multiport diffuser at a depth of approximately 176 feet in the Outer Harbor. The JCO diffuser consists of four active and two inactive (intentionally blocked) ports. The JCO discharge is in the center of a mixing zone for total nitrogen (TN) and total phosphorous (TP). Small mixing zones for ammonia, copper, and zinc have also been established within the region of rapid initial dilution.

Prior to the implementation of high strength waste segregation and use of the JCO, the canneries discharged treated wastewater into the Inner Harbor through two outfalls. These outfalls terminated in about 80 feet of water in open-ended pipes without diffusers. In August 1990 both canneries started high strength waste segregation and offshore ocean disposal of the high strength waste streams (those process streams that are highest in nitrogen, phosphorous, suspended solids, and BOD). The combination of the high strength waste segregation and the use of the JCO have resulted in a markedly improved water quality in Pago Pago Harbor.

Each of the canneries has separate NPDES Permits with effluent limitations and requirements for Pago Pago Harbor receiving water monitoring. The canneries cooperate in implementation of the receiving water monitoring. This application addresses only the NPDES Permit renewal for StarKist Samoa.

Proposed Effluent Limitations (Permit Section A):

StarKist Samoa proposes that the existing effluent limitations remain as currently established except for the monitoring frequency for copper and zinc. The existing limitations and the discharge conditions for the current permit period are as follows:

- Flow is currently limited to 2.9 mgd as a daily maximum. This value has not been exceeded during the current permit period, with a measured daily maximum flow of 2.42 mgd. There is no limitation for 30-day average flow since the original evaluation done for the present JCO location was based on a continuous flow at the permitted level.
- BOD₅ is currently monitored and reported only without a numerical limitation. There have been no instances of dissolved oxygen suppression in Pago Pago Harbor attributable to the discharge. The American Samoa Water Quality Standard (ASWQS) for dissolved oxygen is consistently met based on receiving water quality monitoring. There is no reason at this time to establish a limitation for BOD.
- Suspended solids loading is limited to a 30-day average of 2996 lbs/day and a daily maximum of 7536 lbs/day. The 30-day average was exceeded once during the permit period during January 2002. The daily maximum was not exceeded over the entire permit period (with a daily maximum of 6521 lbs/day reported in January 2002). The exceedance occurred during a time when the high strength waste, normally disposed of at the permitted ocean dumpsite, was diverted through the JCO. This was done with the permission of EPA because of problems with the vessel used for ocean disposal of high strength waste.
- Oil and grease is limited to a 30-day average of 763 lbs/day and a daily maximum of 1907 lbs/day. The 30-day average limitation was exceeded three times and the daily maximum limitation was exceeded twice during the current permit. In both cases one of the exceedances was during January 2002, when the high strength waste was being discharged through the JCO. The other exceedances appear to be

outliers and in the past two years only one 30-day average exceedance (843 lbs/day) has been reported.

- Total phosphorous is limited to a 30-day average of 192 lbs/day and a daily maximum of 309 lbs/day. The 30-day average limitation and the daily maximum limitation were each exceeded three times. In both cases one of the exceedances was during January 2002. The other exceedances appear to be outliers and the most recent exceedance (daily maximum of 358 lbs/day) was in March 2003.
- Total nitrogen is limited to a 30-day average of 1200 lbs/day and a daily maximum of 2100 lbs/day. The 30-day average limitation was exceeded six times and the daily maximum limitation was exceeded five times during the current permit. In both cases one of the exceedances was during January 2002. However, the most recent exceedance (daily maximum of 2910 lbs/day) was in March 2003, and the limitation has not been exceeded since that time.
- Acute toxicity is monitored and reported only and is discussed in more detail in the recommendations concerning other permit conditions (Permit Condition D. Toxicity) below.
- Total ammonia is limited to a concentration of 133 mg/l as a daily maximum. The only exceedance during the current permit was during January 2002. The receiving water quality monitoring shows that the water quality standard is consistently met.
- Temperature is limited to a 30-day average of 90 °F and a daily maximum of 95°F. The 30-day average was exceeded only once, and only by 1 °F. The daily maximum has been exceeded numerous times, but recently with lower frequency. The last time the daily maximum temperature was exceeded was in June of 2004. Extensive receiving water monitoring using a highly accurate and precise oceanographic vertical profiling instrument has failed to demonstrate any measurable effect of the discharge in the vicinity of the outfall diffuser at a resolution of less than ± 0.1 °C.
- Total copper is limited to a 30-day average concentration of 66 µg/l and a daily maximum of 108 µg/l. The current permit requires monitoring once per month, so only the daily average limitation can be reasonably compared to the measurements. The daily average value has been exceeded only once during the permit period and the measurement was obviously an outlier and was more than 6 standard deviations above the mean. Without the outlier the average value was 16.9 µg/l. The receiving water monitoring consistently demonstrated copper concentrations well below the ASWQS of 3.1 µg/l in the vicinity of the discharge and throughout the Harbor. Therefore, StarKist Samoa proposes that the monitoring frequency be reduced and that copper be measured concurrently with and using the same composite sample as used for the acute toxicity bioassay testing.

- Total zinc is limited to a 30-day average concentration of 1545 µg/l and a daily maximum of 1770 µg/l. The current permit requires monitoring once per month, so only the daily maximum limitation can be reasonably compared to the measurements. The daily maximum value has been exceeded only once during the permit period and the measurement was obviously an outlier and was more than 6 standard deviations above the mean. Without the outlier the average value was 262 µg/l. The receiving water monitoring consistently demonstrated zinc concentration well below the water quality standard in the vicinity of the discharge and throughout the Harbor. Therefore, StarKist Samoa proposes that the monitoring frequency be reduced and that zinc be measured concurrently with and using the same composite sample as the acute toxicity bioassay testing.
- pH is limited between 6.5 and 8.6 with the condition that the pH cannot remain outside these limits more than 7 hours and 26 minutes in any calendar month and no individual excursion can be more than 60 minutes. Neither the lower or upper criterion has been exceeded for any length of time since March 2002. Receiving water pH, measured by a vertical profiling instrument, has not shown any measurable effect of the discharge, and consistently meets the ASWQS.

Proposed Discharge Specifications (Permit Section B)

StarKist Samoa proposes that this section stay essentially the same as in the current permit with the exception of removing reference to certain station locations as discussed for Permit Section E (Receiving Water Quality Monitoring Program) below. StarKist Samoa believes the reduction of the number of monitoring stations is justified based on the extensive Pago Pago Harbor receiving water quality data collected during the existing permit period.

Proposed Protected and Prohibited Uses (Permit Section C)

StarKist Samoa proposes that this section stay the same as in the current permit.

Proposed Toxicity Testing (Permit Section D)

StarKist Samoa proposes three changes to this section of the permit as follows:

- The test organism should be specified as *Americamysis bahia*. The current permit specifies *Penaeus vannamei* with a provision for using *Mysidopsis bahia* if *P. vannamei* are not available. It is noted that *A. bahia* is the same organism as *M. bahia*, and has recently been renamed. *P. vannamei* has not been available for use in bioassay testing for many years and the data for the effluent is nearly all based on *A. bahia*. Therefore, specification of this organism is a reasonable approach for the new NPDES Permit.

- StarKist Samoa proposes that the frequency of testing be reduced to once per year from twice per year. The database for the bioassay tests extends over the past 12 years and has been consistent for that time period with some indication of improvement in the effluent quality (the data will be summarized in the Technical Support Document). Annual testing is believed adequate for monitoring in the future.
- The dilution series should be specified as 100%, 50%, 25%, 12.5%, and 6.25%. This series appears to be appropriate based on the test conducted during the current permit period. However, provision to adjust this series if necessary should be indicated in the permit language. The permit language recognizes the difficulty in meeting holding times and temperature requirements of the sample and this language should be kept in the new permit.

Proposed Receiving Water Quality Monitoring (Permit Section E)

A semi-annual Pago Pago Harbor receiving water quality monitoring program has been conducted jointly by StarKist Samoa and Samoa Packing over the period of the current permit. This program extends the monitoring done under the previous permit and other studies done during the feasibility planning of the JCO. The monitoring has also been extended by the additional Harbor monitoring being conducted by the Utulei wastewater treatment plant (WWTP).

The receiving water monitoring consistently demonstrates that ASWQS are generally met throughout Pago Pago Harbor. Occasional excursions above the water quality standards numerical criteria are typically associated with natural events and watershed runoff events not associated with the canneries' discharge. Comparison with the values measured at the reference site outside the Harbor indicates that it is usually impossible to see a measurable effect of the cannery discharge in the water column. Based on the available data StarKist Samoa believes that the receiving water monitoring should be minimized. A minimum monitoring effect could be continued with additional monitoring triggered if results indicate a potential problem. The proposed monitoring is as follows:

- Maintain the current semi-annual monitoring periods to match the two climatic and oceanographic seasons of tradewind and non-tradewind.
- Reduce the number of monitoring stations to five. Station 5 (open coast reference), Stations 8, 8A, and 14 (near discharge), and Station 13 (Inner Harbor reference). The rationale for these stations is that by monitoring those stations closest to the discharge any potential problems would be most easily discerned. Monitoring at three depths at each station, as currently required, would be continued.
- Reduce the parameters monitored as follows:

- Eliminate monitoring for metals except for copper and zinc, which have mixing zone limitations. StarKist Samoa has been monitoring for arsenic, lead, and mercury as well as copper and zinc, for informational purposes. All five metals have consistently been below the water quality standards and the informational monitoring has served its purpose and is no longer required.
- Eliminate the monitoring for nutrients (nitrogen and phosphorous) with the exception of ammonia. Ammonia is retained because there is a mixing zone limitation for this toxic parameter. There are also mixing zone limitations for nutrients including total nitrogen (TN) and total phosphorous (TP). However, by monitoring for chlorophyll-a (to be retained) and light penetration (see item below) the endpoint effects of these nutrients will be monitored. If the chlorophyll-a values increase, this could trigger more extensive monitoring for nutrients to determine the cause of the problem.
- Eliminate monitoring for turbidity (in grab samples) and TSS. Replace the monitoring for these parameters with direct in situ measurement of light penetration using a PAR meter to measure a vertical profile of light penetration. (The current practice of using Secchi depth would be discontinued.) If the light penetration values decrease, this could trigger more extensive monitoring for nutrients to determine the cause of the problem.
- Vertical profiles of temperature, salinity, turbidity, and dissolved oxygen would be continued and measured at each station. However, StarKist Samoa proposes to eliminate vertical profiles of pH since in marine waters this parameter is constrained within a known range. There has been no measurable effect from the discharge, and it can be demonstrated that such an effect will not occur (as described in the Technical Support Document that will be provided as referenced above).

Section D of the current permit contains a trigger for additional studies. StarKist Samoa proposes that this section of the permit be modified so that more extensive monitoring would be defined and the trigger for conducting such monitoring would also be well defined. The additional monitoring would be consistent with the existing monitoring requirements, and would be explicitly described in the permit language. The expanded monitoring could be triggered if water quality standards for copper, zinc, ammonia, or light penetration and chlorophyll-a are not met for two consecutive monitoring episodes at Stations 8 and 8A. Specific proposed permit language will be provided by StarKist Samoa in the Technical Support Document.

Proposed Sediment Monitoring (Permit Section F)

StarKist Samoa and Samoa Packing have conducted numerous sediment monitoring episodes over the past decade. The monitoring has been aimed at tracking the sediment quality, and its possible effect on water quality, at the location of the previous cannery Inner Harbor outfalls, and in the vicinity of the existing deep water JCO in the Outer Harbor. This monitoring indicates a gradual improvement in Inner Harbor sediments and no degradation for Outer Harbor sediments. These trends are supported by results from ASEPA's recent Sediment Toxicity Study. Sediment changes are generally only discernable over long time periods. Based on the previous results StarKist Samoa proposes that the sediment monitoring frequency and sample set be modified as follows for the renewal permit:

- Sampling will be done once during the permit cycle (at year five of the permit) to determine if any degradation in the sediments near the discharge point can be observed. Based on the past data and the known long-term nature of changes in sediments the reduction in frequency is appropriate. The sediment data proposed will be available for the next round of permit renewal.
- Stations sampled will include Stations OH1 and OH2 (near the diffuser), OH4 (Outer Harbor reference), IH1 (near old cannery outfalls) and IH3 (Inner Harbor Reference). Stations OH3 (near the Utulei WWTP Outfall) and IH2 (central Inner Harbor Channel) have been included in the past for informational purposes. These stations do not directly relate to the past or present cannery operations and the required information collected, to date, is sufficient. Therefore, these two stations are proposed for elimination from the sediment monitoring.
- It is proposed that the same suite of parameters be measured as in the current permit with the following exceptions:
 - Copper and zinc will be measured only at Stations OH1 and OH2. This will provide a comparison to past levels at the stations in the vicinity of the discharge to assess any potential effects of the discharge. Informational monitoring at other stations has served its intended purpose and is no longer required.
 - Mercury, lead, and arsenic have been monitored for informational purposes at all stations. This monitoring has provided the required data and is no longer needed.

Proposed Coral Reef Survey (Permit Condition G)

StarKist Samoa and Samoa Packing, and more recently the Utulei WWTP, have been conducting periodic coral reef surveys in Pago Pago Harbor since 1991. These surveys, although semi-quantitative, have clearly shown that there has been no further degradation of the coral reefs in the Harbor over that time period since the cannery outfall was removed from the Inner Harbor (August 1990). The data suggests, qualitatively, that

there has been improvement throughout the Harbor. This is also the case in those areas closest to the current JCO discharge point. With the exception of hurricane effects on coral reefs, the only locations in the Harbor under continuing stress for coral reef development are areas adjacent to stream runoff and not associated with the deep cannery JCO discharge.

Existing conditions in the Harbor (not adjacent to stream mouths) are obviously not degrading the health of the coral reef. The cannery discharge and Harbor water quality is not expected to change in the future. Therefore, StarKist Samoa believes that the water quality monitoring proposed above is sufficient to maintain the existing protection of the coral reef and proposes that the coral reef surveys be discontinued for the next five-year permit period. EPA can reinstitute the surveys in the future if conditions or other sources indicate there may be changes in coral reef conditions attributable to water quality factors.

Proposed Other Permit Conditions

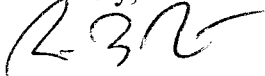
In addition to those sections of the current permit there are a number of other sections in the permit that require studies or monitoring. StarKist Samoa understands that Section H (Fish Tissue Study) and Section I (Sea Turtle Review) were one-time studies in the current permit and will not be required in the renewal permit. Other conditions in the permit address administrative and procedural issues and will remain as currently described or modified and updated by EPA as appropriate.

Proposed Interim Monitoring

In the interim period between the expiration date of the current permit and renewal date of the NPDES Permit, StarKist Samoa proposes that the suggested changes to the semi-annual receiving water monitoring and effluent toxicity testing be implemented in place of the present monitoring requirements. These changes are outlined above in the sections titled "Proposed Receiving Water Quality Monitoring (Permit Section E)" and "Proposed Toxicity Testing (Permit Section D)".

We look forward to working with EPA and American Samoa EPA in the development of the renewal permit. If you have any questions or require additional data please feel free to contact me at your convenience. Thank you for your time and consideration of this matter,

Sincerely,



Brett Butler
General Manager

cc: Carl Goldstein /USEPA; Peter Peshut /ASEPA; Steve Costa /CH2M HILL

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER	
				GENERAL INSTRUCTIONS	
PLEASE PLACE LABEL IN THIS SPACE				<small>If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.</small>	
II. POLLUTANT CHARACTERISTICS					
INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.					
SPECIFIC QUESTIONS		MARK "X"		SPECIFIC QUESTIONS	
		YES	NO	FORM ATTACHED	
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)
III. NAME OF FACILITY					
1 SKIP STARKIST SAMOA					
IV. FACILITY CONTACT					
A. NAME & TITLE (last, first, & title)			B. PHONE (area code & no.)		
2 BUTLER, BRETT, GENERAL MANAGER			684 644 1835		
V. FACILITY MAILING ADDRESS					
A. STREET OR P.O. BOX					
3 PO BOX 368					
B. CITY OR TOWN				C. STATE	D. ZIP CODE
4 PAGO PAGO, TUTUILA				AS	96799
VI. FACILITY LOCATION					
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER					
5					
B. COUNTY NAME					
MAOPUTASI					
C. CITY OR TOWN			D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
6 ATU'U			AS	96799	

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST										B. SECOND													
C	7	2	0	9	1	(specify)	Processing and canning of tuna fish					C	7	2	0	4	7	(specify)	Canning of pet food				
15	16	17	18	19							11	12	13	14	15								
C. THIRD										D. FOURTH													
C	7	2	0	4	8	(specify)	Processing of fish by-products into fish meal					C	7					(specify)					
15	16	17	18	19							15	16	17	18	19								

VIII. OPERATOR INFORMATION

A. NAME																														B. Is the name listed in Item VIII-A also the owner?											
C	8	S	T	A	R	K	I	S	T	S	A	M	O	A																		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 66									
15	16	17	18	19																																					
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box. If "Other", specify.)																									D. PHONE (area code & no.)																
F = FEDERAL M = PUBLIC (other than federal or state) P (specify) S = STATE O = OTHER (specify)																									C 6 8 4 6 4 4 1 8 3 5 A 15 16 17 18 19 20 21 22 23 24 25																
E. STREET OR P.O. BOX																																									
P O BOX 368																																									
26																																									
F. CITY OR TOWN																				G. STATE					H. ZIP CODE					IX. INDIAN LAND											
C	B	P	A	G	O	P	A	G	O	T	U	T	U	I	L	A																A S 9 6 7 9 9 40 41 42 43 44 45 46 47 48 49					Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 52				
15	16	17	18	19																																					

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)															D. PSD (Air Emissions from Proposed Sources)																								
C	9	N													C	9	P																						
15	16	17	18	19											15	16	17	18	19																				
B. UIC (Underground Injection of Fluids)															E. OTHER (specify)																								
C	9	U													C	9													(specify)	Permit for high strength waste disposal									
15	16	17	18	19											15	16	17	18	19																				
C. RCRA (Hazardous Wastes)															E. OTHER (specify)																								
C	9	R													C	9													(specify)										
15	16	17	18	19											15	16	17	18	19																				

XI. MAP

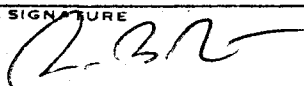
Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

StarKist Samoa conducts the processing and canning of tuna fish and other ingredients (water, oil, salt) for human consumption, canning of pet food, and the processing of fish by-products into fish meal. StarKist Samoa's DAF treated wastewater is discharged through a outfall and diffuser it shares with the adjoining cannery, Chicken of the Sea Samoa Packing. The joint cannery outfall discharges into marine receiving water, Pago Pago Harbor's outer reach in 176 feet of water.

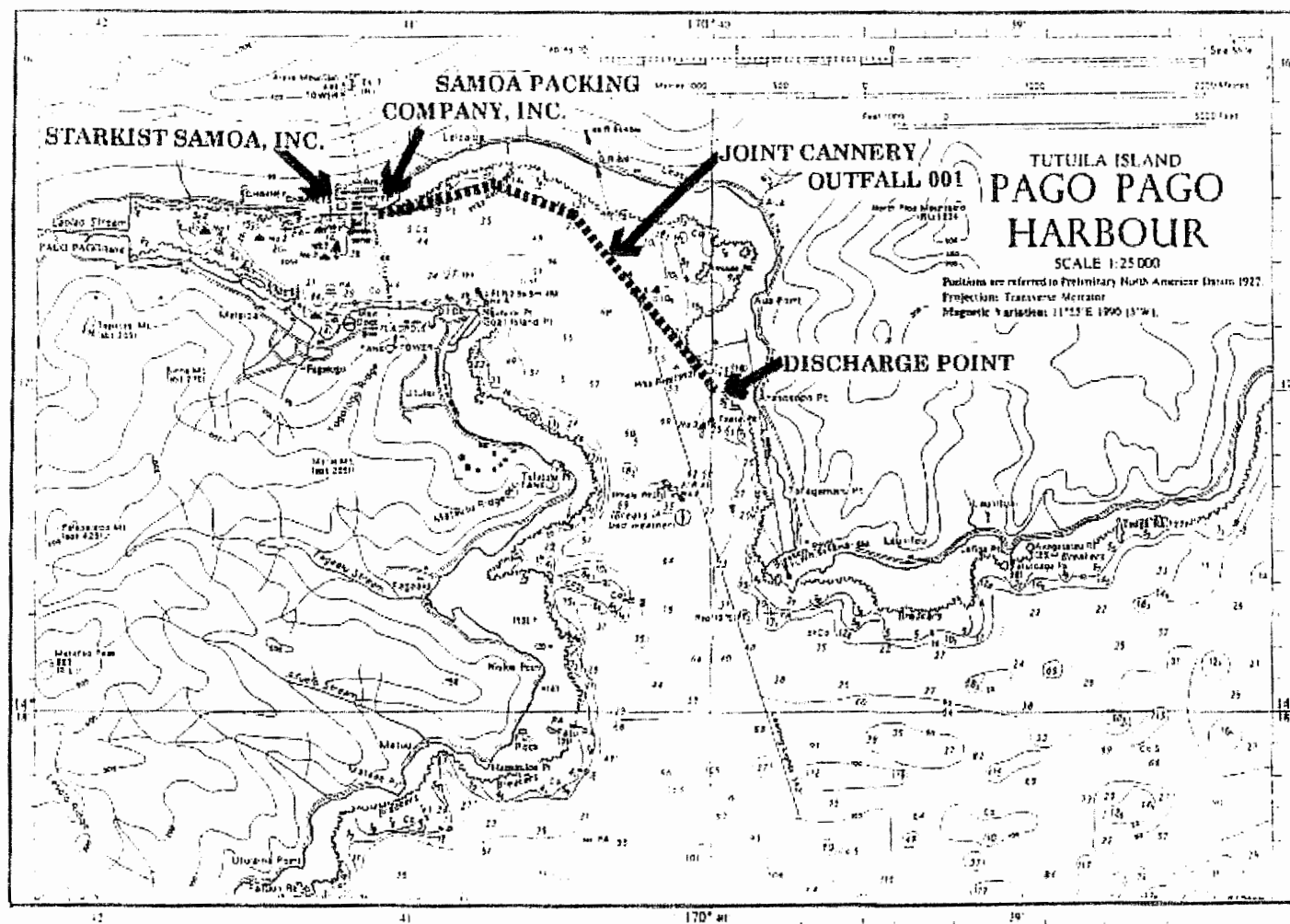
XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)															B. SIGNATURE															C. DATE SIGNED														
Brett Butler, General Manager																														7/25/05														

COMMENTS FOR OFFICIAL USE ONLY

COMMENTS FOR OFFICIAL USE ONLY																														
C																														
15	16	17	18	19																										



**LOCATION MAP FOR JOINT CANNERY OUTFALL
PAGO PAGO HARBOR, AMERICAN SAMOA
(NPDES Permit General Form 1, Item XI.)**

Due 10/28/05

DISCHARGE MONITORING REPORT (DMR) Routs Slip

Facility Name:

STARKIST SAMOA, INC

AS00000019

MVDT-end date:

7/31/05
8/31/05 9/30/05

Date Received:

10/10/05

Period(s):

Jul-Aug-Sep05

MONTHLY

QUARTERLY

SEMIANNUAL

ANNUAL

☒ Preprinted Form

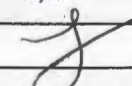
☐ Logged

☒ Entered in PCS/Date:

10/27/05

☐ NOT Preprinted

By:



4:11pm

COMMENTS

001A

Carl Goldstein 2-3767

ROUTING AND TRANSMITTAL SLIP

Date

10/27/05

TO: (Name, office symbol, room number,
building, Agency/ Post)

Initials

Date

1. L. L. ANA

2.

3.

4.

5.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Star-101st DMR's
for 4th Q in American
Janda, & COS.

DO NOT use this form as a RECORD of approvals, concurrences, disposals,
clearances, and similar actions

FROM: (Name, org. symbol, Agency/ Post)

Room No. — Bldg.

Phone No.

NSN 7540-00-935-5862
5041-103



OPTIONAL FORM 41 (Rev. 1-94)

Prescribed by GSA

UNICOR FPI - SST

StarKist Samoa, Inc.



A Division of Star-Kist Foods, Inc.

P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799
Telephone: 684 644-4231
Facsimile: 684 644-2440

PCS entered
10/27/05
4:11 pm

October 07, 2005

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

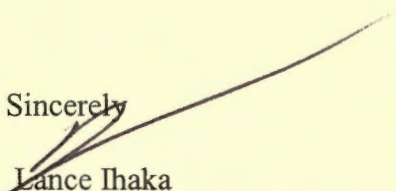
Gentlemen :

Re : Discharge Monitoring Report for the Months of July, August and September of 2005,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of
July, August and September of 2005.

Star Kist Samoa met all Effluent limits.

Sincerely


Lance Ihaka

Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa

Attachments :

cc :

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.
Mr. Peter Peshut
Mr. Brett Butler

NAME STAR-KIST SAMOA

ADDRESS PO BOX 368

PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY

LOCATION PAGO PAGO

AS 96799

ATTN: MR. JOE CARNEY

 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MAJOR

AS0000019

PERMIT NUMBER

001 A

DISCHARGE NUMBER

F - FINAL

DISCHARGE 001/MONTHLY

MONITORING PERIOD

FROM YEAR 05 MO 07 DAY 01 TO YEAR 05 MO 07 DAY 31

*** NO DISCHARGE 1 1 ***

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	81	90	(15)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	90	95			CONTIN	CONTIN
BOD, 5-DAY (20 DEG. C) 00310 1 0 0	SAMPLE MEASUREMENT	2904	2904	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MD AVG	REPORT DAILY MX	LBS/DY	*****	*****	*****	****		ONCE/	COMPOS
PH	SAMPLE MEASUREMENT	*****	*****		6.7	*****	7.2	(12)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	5.5 MINIMUM	*****	8.6 MAXIMUM	SU		CONTIN	CONTIN
SOLIDS, TOTAL SUSPENDED 00530 1 0 0	SAMPLE MEASUREMENT	1681.9	2080.5	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	2996 MD AVG	7936 DAILY MX	LBS/DY	*****	*****	*****	****		WEEKLY	COMPOS
NITROGEN, TOTAL (AS N) 00600 1 0 0	SAMPLE MEASUREMENT	724.4	804.3	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	1200 MD AVG	2100 DAILY MX	LBS/DY	*****	*****	*****	****		ONCE/	COMPOS
NITROGEN, AMMONIA TOTAL (AS N) 00610 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	*****	22.5	(19)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	133 DAILY MX	MG/L		WEEKLY	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 1 0 0	SAMPLE MEASUREMENT	148.9	163.2	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	192 MD AVG	309 DAILY MX	LBS/DY	*****	*****	*****	****		ONCE/	COMPOS
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.				TELEPHONE		DATE			
LANCE IHAKA Manager Engineering TYPED OR PRINTED						SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA CODE NUMBER		YEAR MO DAY	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME STAR-KIST SAMOA

ADDRESS PO BOX 368

PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY

LOCATION PAGO PAGO

AS 96799

ATTN: MR. JOE CARNEY

 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MAJOR

AS0000019

PERMIT NUMBER

001 A

DISCHARGE NUMBER

MONITORING PERIOD

FROM YEAR 05 MO 07 DAY 01 TO YEAR 05 MO 07 DAY 31

F - FINAL

DISCHARGE 001/MONTHLY

*** NO DISCHARGE 1 1 ***

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
ZINC	SAMPLE MEASUREMENT	*****	*****		*****	183	183	(28)			
TOTAL RECOVERABLE	PERMIT REQUIREMENT	*****	*****	****	*****	1545	1770	UG/L		ONCE/	COMPOS
01094 1 0 0				****		30DA AVG	DAILY MX			MONTH	
EFFLUENT GROSS VALUE											
COPPER	SAMPLE MEASUREMENT	*****	*****		*****	<10	<10	(28)			
TOTAL RECOVERABLE	PERMIT REQUIREMENT	*****	*****	****	*****	66	108	UG/L		ONCE/	COMPOS
01119 1 0 0				****		30DA AVG	DAILY MX			MONTH	
EFFLUENT GROSS VALUE											
OIL AND GREASE	SAMPLE MEASUREMENT	397.5	614.6	(26)	*****	*****	*****				
03582 1 0 0	PERMIT REQUIREMENT	763	1907		*****	*****	*****	****		WEEKLY	GRAB
EFFLUENT GROSS VALUE		MD AVG	DAILY MX	LBS/DY				****			
FLOW, IN CONDUIT OR	SAMPLE MEASUREMENT	*****	1.645954	(03)	*****	*****	*****				
THRU TREATMENT PLANT	PERMIT REQUIREMENT	*****	2.7		*****	*****	*****	****		CONT IN	CORDR
50050 1 0 0			DAILY MX	MGD				****		UDUS	
EFFLUENT GROSS VALUE											
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manger Engineering

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

TELEPHONE

DATE

05 18 10

AREA CODE **NUMBER**

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME STAR-KIST SAMOA

ADDRESS PO BOX 368

PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY

LOCATION PAGO PAGO

AS 96799

ATTN: MR. JOE CARNEY

 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MAJOR

 AS0000019
PERMIT NUMBER

 001 A
DISCHARGE NUMBER

 F - FINAL
DISCHARGE 001/MONTHLY

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
05	08	01		05	08	31

*** NO DISCHARGE 1 1 ***

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	83	92	(15)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	90 30DA AVG	95 DAILY MX	DEG. F		CONTIN	CONTIN
BOD, 5-DAY (20 DEG. C) 00310 1 0 0	SAMPLE MEASUREMENT			(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MD AVG	REPORT DAILY MX	LBS/DY	*****	*****	*****	****		ONCE/	COMPOS
PH 00400 1 0 0	SAMPLE MEASUREMENT	*****	*****		6.6	*****	7.2	(12)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	5.5 MINIMUM	*****	8.6 MAXIMUM	SU		CONTIN	CONTIN
SOLIDS, TOTAL SUSPENDED 00530 1 0 0	SAMPLE MEASUREMENT	2066	2983.9	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	2996 MD AVG	7536 DAILY MX	LBS/DY	*****	*****	*****	****		WEEKLY	COMPOS
NITROGEN, TOTAL (AS N) 00600 1 0 0	SAMPLE MEASUREMENT	872.3	1075.2	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	1200 MD AVG	2100 DAILY MX	LBS/DY	*****	*****	*****	****		ONCE/	COMPOS
NITROGEN, AMMONIA TOTAL (AS N) 00610 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	*****	36.7	(19)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	133 DAILY MX	MG/L		WEEKLY	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 1 0 0	SAMPLE MEASUREMENT	150.5	181.8	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	192 MD AVG	309 DAILY MX	LBS/DY	*****	*****	*****	****		ONCE/	COMPOS
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.				TELEPHONE		DATE			
LANCE IHAKA Manger Engineering								05 10 10			
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				AREA CODE	NUMBER	YEAR	MO	DAY	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME STAR-KIST SAMOA

ADDRESS PO BOX 368

PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY

LOCATION PAGO PAGO

AS 96799

ATTN: MR. JOE CARNEY

 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MAJOR

A50000019

PERMIT NUMBER

001 A

DISCHARGE NUMBER

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
05	08	01		05	08	31

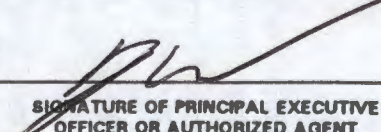
F - FINAL

DISCHARGE 001/MONTHLY

*** NO DISCHARGE 1 1 ***

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
ZINC	SAMPLE MEASUREMENT	*****	*****		*****	219	219	(28)			
TOTAL RECOVERABLE	PERMIT REQUIREMENT	*****	*****	****	*****	1545	1770	UG/L		ONCE/	COMPOS
01094 1 0 0				****		30DA AVG	DAILY MX			MONTH	
EFFLUENT GROSS VALUE											
COPPER	SAMPLE MEASUREMENT	*****	*****		*****	<10	<10	(28)			
TOTAL RECOVERABLE	PERMIT REQUIREMENT	*****	*****	****	*****	66	108	UG/L		ONCE/	COMPOS
01119 1 0 0				****		30DA AVG	DAILY MX			MONTH	
EFFLUENT GROSS VALUE											
OIL AND GREASE	SAMPLE MEASUREMENT	439.1	825.3	(26)	*****	*****	*****				
03582 1 0 0	PERMIT REQUIREMENT	763	1907		*****	*****	*****	****		WEEKLY	GRAB
EFFLUENT GROSS VALUE		MD AVG	DAILY MX	LBS/DY				****			
FLOW, IN CONDUIT OR	SAMPLE MEASUREMENT	*****	1.884008	(03)	*****	*****	*****				
THRU TREATMENT PLANT	PERMIT REQUIREMENT	*****	2.9		*****	*****	*****	****		CONT IN	CORDR
00050 1 0 0			DAILY MX	MGD				****		UDUS	
EFFLUENT GROSS VALUE											
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE	DATE	
LANCE IHAKA Manger Engineering TYPED OR PRINTED		 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE NUMBER	YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME STAR-KIST SAMOA

ADDRESS PO BOX 3682

PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY

LOCATION PAGO PAGO

AS 96799

ATTN: MR. JOE CARNEY

 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MAJOR

AS0000019

PERMIT NUMBER

001 A

DISCHARGE NUMBER

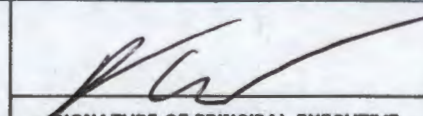
F - FINAL

DISCHARGE 001/MONTHLY

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
05	09	01		05	09	30

*** NO DISCHARGE 1 1 ***

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	84	89	(15)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	90 30DA AVG	95 DAILY MX	DEG. F		CONTIN	CONTIN
BOD, 5-DAY (20 DEG. C) 00310 1 0 0	SAMPLE MEASUREMENT	4412.4	4412.4	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/	COMPOS
PH 00400 1 0 0	SAMPLE MEASUREMENT	*****	*****		6.7	*****	7.1	(12)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	6.5 MINIMUM	*****	8.6 MAXIMUM	SU		CONTIN	CONTIN
SOLIDS, TOTAL SUSPENDED 00530 1 0 0	SAMPLE MEASUREMENT	2284	2825.2	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	2996 MO AVG	7536 DAILY MX	LBS/DY	*****	*****	*****	*****		WEEKLY	COMPOS
NITROGEN, TOTAL (AS N) 00600 1 0 0	SAMPLE MEASUREMENT	838.2	1043.0	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/	COMPOS
NITROGEN, AMMONIA TOTAL (AS N) 00610 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	*****	31.1	(19)			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	133 DAILY MX	MG/L		WEEKLY	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 1 0 0	SAMPLE MEASUREMENT	156.6	168.1	(26)	*****	*****	*****				
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/	COMPOS
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					TELEPHONE		DATE		
LANCE IHAKA Manger Engineering TYPED OR PRINTED											
							SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		05 10 10		
							AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NAME STAR-KIST SAMOA

ADDRESS PO BOX 368

PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY

LOCATION PAGO PAGO

AS 96799

ATTN: MR. JOE CARNEY

 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

MAJOR

AS0000019

PERMIT NUMBER

001 A

DISCHARGE NUMBER

MONITORING PERIOD

FROM YEAR 05 MO 09 DAY 01 TO YEAR 05 MO 09 DAY 30

 F - FINAL
DISCHARGE 001/MONTHLY

*** NO DISCHARGE 1 1 ***

NOTE: Read instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
ZINC	SAMPLE MEASUREMENT	*****	*****		*****	175	175	(28)			
TOTAL RECOVERABLE	PERMIT REQUIREMENT	*****	*****	****	*****	1545	1770	UG/L		ONCE/	COMPOS
01094 1 0 0				****		30DA AVG	DAILY MX			MONTH	
EFFLUENT GROSS VALUE											
COPPER	SAMPLE MEASUREMENT	*****	*****		*****	<10	<10	(28)			
TOTAL RECOVERABLE	PERMIT REQUIREMENT	*****	*****	****	*****	66	108	UG/L		ONCE/	COMPOS
01119 1 0 0				****		30DA AVG	DAILY MX			MONTH	
EFFLUENT GROSS VALUE											
OIL AND GREASE	SAMPLE MEASUREMENT	379.3	620.0	(26)	*****	*****	*****				
03582 1 0 0	PERMIT REQUIREMENT	763	1907		*****	*****	*****	****		WEEKLY	GRAB
EFFLUENT GROSS VALUE		MD AVG	DAILY MX	LB5/DY				****			
FLOW, IN CONDUIT OR	SAMPLE MEASUREMENT	*****	2.017454	(03)	*****	*****	*****				
THRU TREATMENT PLANT	PERMIT REQUIREMENT	*****	2.9		*****	*****	*****	****		CONTIN	CORDR
00050 1 0 0			DAILY MX	MGD				****		UOUS	
EFFLUENT GROSS VALUE											
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA

Manager Engineering

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

TELEPHONE

DATE 05 10 10

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

AREA CODE NUMBER YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

DISCHARGE MONITORING REPORT (DMR) Routs Slip

Facility Name:

STARKIST SAMOA, INC

AS00000019

MVDT-end date:

10/31/05 12/31/05
11/30/05

Date Received:

1/17/06

Period(s):

Oct Nov Dec 05

MONTHLY

QUARTERLY

SEMIANNUAL

ANNUAL



Preprinted Form



Logged



Entered in PCS/Date:

2/6/06



NOT Preprinted

By:

J

COMMENTS

CCIA

Note: Parameter Code recorded
by Prog. mgr.↓
Carl Goldstein 2-3767

StarKist Seafood, Inc.

January 17, 2006

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : Discharge Monitoring Report for the Months of October, November and December of 2005,
under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of October, November and December of 2005.

Star Kist Samoa met all Effluent limits, except for the pH.

The pH exceeded the one-hour individual excursion limit during the month of December 2005.
The Team Member has been retrained and was issued a written warning for poor job performance.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \ samoa
Attachments :
cc :

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.
Mr. Peter Peshut
Mr. Brett Butler

Codes for parameters
were missing. I
used the codes from
the reporting period
JUL-AUG-SEPT 05

Carl L Goldstein
Program Manager
CED-6
2-3767

entered
2/16/06

Wastewater Summary Report for the month of October 2005

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits		Oil & Grease		TSS		TP		TN		Total Ammonia	BOD	
						Lo	Hi	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Eff mg/l	Total #/Day
1		0.621894	141.9	4.2	89	6.7	6.9											
2		0.981331	223.6	6.1	77	6.7	6.9											
3	578.9205	1.623316	369.8	10.0	80	6.7	6.9											
4	594.4963	1.926894	378.4	9.1	80	6.8	6.9	29.1	466.3	140.7	2254.6	12.0	192.3	73.0	1169.8	12.4		
5	603.8615	1.881246	365.5	12.5	82	6.7	7.1					12.0	187.7	75.0	1173.3			
6	604.5228	1.864266	356.9	12.1	82	6.7	6.9											
7	605.5270	1.614829	361.2	11.6	83	6.7	6.9											
8		0.557090	137.6	4.0	82	6.7	6.8											
9		0.315206	90.3	0.8	80	6.9	6.9											
10	SHUT DOWN	0.277142	34.4	0.7	75	6.8	6.9											
11	SHUT DOWN	0.219594	12.9	0.2	75	6.8	6.8											
12	SHUT DOWN	0.293449	43.0	1.7	77	6.8	6.8											
13	SHUT DOWN	0.191674	17.2	0.4	72	6.8	6.8											
14	SHUT DOWN	0.220322	86.0	1.4	80	6.8	7.1											
15	SHUT DOWN	0.458478	55.9	1.6	82	7.0	7.1											
16		0.760133	159.1	5.8	82	6.8	8.7											
17	529.8510	1.391219	331.1	8.9	82	6.7	7.8											
18	518.7603	1.670867	344.0	12.4	84	6.8	7.1	71.9	999.0	186.0	2584.5	11.4	158.4	71.0	986.5	11.2	355.5	4939.6
19	559.0540	1.611155	365.5	11.2	84	6.7	7.0					14.9	199.6	78.0	1045.1			
20	571.3333	1.782925	464.4	11.6	83	6.7	6.9											
21	565.8150	1.431812	326.8	9.0	87	6.8	6.9											
22		0.602449	90.3	3.2	85	6.8	6.9											
23		0.970811	266.6	6.5	84	6.8	6.9											
24	580.6605	1.520496	382.7	10.5	85	6.7	6.9											
25	593.4100	1.791665	382.7	12.1	82	6.7	7.0											
26	593.5263	1.791740	378.4	12.2	82	6.8	6.9	13.4	199.7	144.7	2156.0	12.5	186.3	78.0	1162.2	20.9		
27	589.1208	1.883563	344.0	12.6	83	6.8	6.9					13.3	208.3	79.0	1237.4			
28	584.5883	1.600332	305.3	11.4	87	6.7	6.9											
29		0.718934	146.2	4.7	80	6.7	6.9											
30		1.052534	258.0	7.6	78	6.7	6.9											
31	601.3350	1.529223	369.8	10.7	82	6.8	6.9											
TOT	9274.7826	35.156589	7589.5	226.8					1665.0		6995.1		1132.6		6774.3			
AVG	579.6739	1.134084	244.8	7.3	81			38.1	555.0	157.1	2331.7	12.7	188.8	75.7	1129.1	14.8	355.5	4939.6

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

FACILITY

LOCATION

MONITORING PERIOD

FROM

YEAR MO DAY
2005 10 01

TO

YEAR MO DAY
2005 10 31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)	
		30-DAY AVERAGE		DAILY MAXIMUM	MINIMUM		AVERAGE	MAXIMUM				
				UNITS								
50050-1-0-0 FLOW	SAMPLE MEASUREMENT		1.926894	mgd					0	Continuous	Recorder	
	PERMIT REQUIREMENT		2.9							"	"	
00310-1-0-0 BOD5	SAMPLE MEASUREMENT	4939.6	4939.6	lbs/day	355.5		355.5	355.5	0	Once/Month	Composite	
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX		N/A		N/A	N/A		" "	"	
00530-1-0-0 TSS	SAMPLE MEASUREMENT	2331.7	2584.5	lbs/day	140.7		157.1	186.0	0	Once/Week	Composite	
	PERMIT REQUIREMENT	2996	7536		N/A		N/A	N/A		" "	"	
03582-1-0-0 OIL & GREASE	SAMPLE MEASUREMENT	555.0	999.0	lbs/day	13.4		38.1	71.9	0	Once/Week	Grab (2)	
	PERMIT REQUIREMENT	763	1907		N/A		N/A	N/A		" "	" "	
00665-1-0-0 TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	188.8	208.3	lbs/day	11.4		12.7	14.9	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	192	309		N/A		N/A	N/A		" "	"	
00610-1-0-0 TOTAL NITROGEN	SAMPLE MEASUREMENT	1129.1	1237.4	lbs/day	71.0		75.7	79.0	0	One Set/Month (3)	Composite	
	PERMIT REQUIREMENT	1200	2100		N/A		N/A	N/A		" "	"	
00610-1-0-0 TOTAL AMMONIA	SAMPLE MEASUREMENT				11.2		14.8	20.9	0	Once/Week	Composite	
	PERMIT REQUIREMENT				N/A		N/A	133		" "	"	
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE			
LANCE IHAKA Manager, Engineering and Maintenance												
TYPE OR PRINTED									SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE NUMBER	YEAR MO DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

FACILITY

LOCATION

MONITORING PERIOD

YEAR	MO	DAY	TO	YEAR	MO	DAY
2005	10	01		2005	10	31

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) (54-61)			(4 Card Only) QUALITY OR CONCENTRATION (38-45) (46-53) (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
00011 - 1-0-0 TEMPERATURE	SAMPLE MEASUREMENT					81	89		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
00400 - 1-0-0 pH	SAMPLE MEASUREMENT				6.7		8.7		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
01119 - 1-0-0 TOTAL COPPER	SAMPLE MEASUREMENT					16	16		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		" "	"
01094 - 1-0-0 TOTAL ZINC	SAMPLE MEASUREMENT					1030	1030		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER LANCE IHAKA Manager, Engineering and Maintenance TYPE OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
			AREA CODE	NUMBER

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had one (1) pH reading which was above 8.6 for thirty minutes through out the month. We did not exceed the one hour individual excursion limit. This is not considered a violation.

Wastewater Summary Report for the month of November 2005

Date	Production	Flow	Alum	Poly	Max	pH Limits		Oil & Grease		TSS		TP		TN		Total	BOD	
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Ammonia Eff mg/l	Eff mg/l	Total #/Day
1	584.0263	1.765820	391.3	11.8	83	6.7	6.9											
2	599.0230	1.801942	421.4	11.8	82	6.7	6.9	75.4	1129.9	224.7	3367.1	12.1	181.3	89.0	1333.7	18.3		
3	595.3460	1.780093	395.6	12.5	84	6.7	6.9					11.2	165.8	83.0	1228.7			
4	582.5188	1.409808	335.4	9.1	84	6.7	6.9											
5		0.742864	159.1	2.7	80	6.8	6.9											
6		1.166817	219.3	6.6	77	6.8	6.9											
7	606.3690	1.792096	374.1	12.0	82	6.8	7.0											
8	596.1220	1.890918	374.1	13.4	82	6.7	7.0	6.4	100.6	67.3	1058.3	10.1	158.8	77.0	1210.8	13.7	306.4	4818.1
9	589.9373	1.829913	447.2	12.4	83	6.7	6.9					11.1	168.9	84.0	1278.3			
10	578.9510	2.012903	399.9	13.0	84	6.7	6.9											
11	583.6385	1.910906	322.5	11.6	84	6.7	6.9											
12		0.540363	103.2	2.8	85	6.8	6.9											
13		1.025580	262.3	6.5	76	6.7	6.9											
14	592.2655	1.671224	361.2	10.5	82	6.8	7.0											
15	596.8868	1.892605	412.8	12.5	84	6.8	7.0											
16	595.7238	1.868743	434.3	11.2	84	6.7	7.4	27.4	425.8	176.0	2735.1	12.5	194.3	61.0	948.0	23.3		
17	566.4920	1.915068	395.6	12.1	85	6.7	6.9					11.6	184.7	45.0	716.7			
18	565.1145	1.617223	339.7	10.0	87	6.7	7.0											
19		0.582139	116.1	2.4	84	6.8	6.8											
20		1.089616	266.6	8.4	78	6.7	6.9											
21	561.7190	1.785483	365.5	12.0	83	6.7	6.9											
22	562.2218	1.891070	387.0	12.7	84	6.8	7.0	19.5	306.7	82.0	1289.5	10.1	158.8	77.0	1210.9	24.4		
23	554.8240	1.525635	399.9	11.1	87	6.7	7.0					10.0	126.9	76.0	964.2			
24		0.510027	159.1	4.8	85	6.7	6.8											
25		0.257370	12.9	0.9	76	6.8	6.9											
26		0.438721	43.0	1.2	84	6.7	6.8											
27		1.112557	141.9	4.1	83	6.7	6.9											
28	584.6608	1.550129	292.4	8.7	88	6.7	6.9											
29	571.6470	2.109197	425.7	11.7	82	6.7	7.4	37.7	661.3	161.3	2829.2	8.7	152.6	74.0	1298.0	24.2		
30	595.9213	1.958144	395.6	12.3	83	6.7	7.4					9.9	161.2	80.0	1302.7			
TOT	11663.4084	43.444974	9154.7	272.8					2624.3		11279.2		1653.3		11492.0			
AVG	583.1704	1.448166	305.2	9.1	83			33.3	524.9	142.3	2255.8	10.7	165.3	74.6	1149.2	20.8	306.4	4818.1

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER

FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2005	11	01	FROM	2005	11	30
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		30-DAY AVERAGE (46-53)	DAILY MAXIMUM (54-61)	UNITS	MINIMUM (38-45)	30-DAY AVERAGE (46-53)	DAILY MAXIMUM (54-61)	UNITS			
50050 1-0-0	SAMPLE MEASUREMENT		2.109197						0	Continuous	Recorder
FLOW	PERMIT REQUIREMENT		2.9	mgd						"	"
00310 1-0-0	SAMPLE MEASUREMENT	4818.1	4818.1		306.4	306.4	306.4		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	lbs/day	N/A	N/A	N/A	mg/l		" "	"
00530 1-0-0	SAMPLE MEASUREMENT	2255.8	3367.1		67.3	142.3	224.7		0	Once/Week	Composite
TSS	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		" "	"
03582 1-0-0	SAMPLE MEASUREMENT	524.9	1129.9		6.4	33.3	75.4		0	Once/Week	Grab (2)
OIL & GREASE	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		" "	" "
00665 1-0-0	SAMPLE MEASUREMENT	165.3	194.3		8.7	10.7	12.5		0	One Set/Month (3)	Composite
TOTAL PHOSPHORUS	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		" "	"
00600 1-0-0	SAMPLE MEASUREMENT	1149.2	1333.7		45.0	74.6	89.0		0	One Set/Month (3)	
TOTAL NITROGEN	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		" "	"
00610 1-0-0	SAMPLE MEASUREMENT				13.7	20.8	24.4		0	Once/Week	Composite
TOTAL AMMONIA	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE		
LANCE IHAKA Manager, Engineering and Maintenance											
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES

DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS0000019
PERMIT NUMBER

(17-19)
001
DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
2005	11	05	TO	2005	11	30

(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(38-45) MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS			
000118 - 1-0-0	SAMPLE MEASUREMENT					83	87		0	Continuous	Continuous
TEMPERATURE	PERMIT REQUIREMENT					90	95	° F		"	"
00400 1-0-0	SAMPLE MEASUREMENT				6.7		7.4		0	Continuous	Continuous
pH	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
01119 1-0-0	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite
TOTAL COPPER	PERMIT REQUIREMENT					66	108	µg/L		"	"
01094 1-0-0	SAMPLE MEASUREMENT					179.0	179.0		0	Once/Month	Composite
TOTAL ZINC	PERMIT REQUIREMENT					1545	1770	µg/L		"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

TELEPHONE DATE

SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

AREA CODE NUMBER YEAR MO DAY

Wastewater Summary Report for the month of December 2005

	Production	Flow	Alum	Poly	Max	pH Limits		Oil &Grease		TSS		TP		TN		Total	BOD	
	Tons	mgd	#/day	#/day	Temp F	Lo	Hi	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Eff mg/l	Total #/Day	Ammonia Eff mg/l	Eff mg/l	Total #/Day
Date																		
1	556.4233	1.947108	374.1	11.8	84	6.7	6.9											
2	565.7995	1.582383	352.6	10.2	85	6.7	6.9											
3		0.666330	124.7	3.2	88	6.8	6.9											
4		1.145460	262.3	8.2	77	6.8	6.9											
5	512.6723	1.869609	421.4	10.6	84	6.8	7.2											
6	514.8930	1.892398	451.5	12.7	86	6.7	7.0	43.7	687.7	202.7	3189.9	12.6	198.3	75.0	1180.3	31.2	193.4	3043.6
7	516.2785	2.040614	460.1	13.5	86	6.7	6.9					9.8	166.3	65.0	1103.0			
8	522.7408	1.973795	387.0	11.6	84	6.7	7.0											
9	528.6858	1.229880	339.7	10.0	85	6.8	7.0											
10		0.654317	159.1	4.4	80	6.8	7.1											
11		1.308431	301.0	9.5	78	6.8	6.9											
12	470.6458	1.846189	404.2	11.6	77	6.7	6.8											
13	473.7608	1.669800	425.7	10.6	77	6.7	6.9											
14	558.5018	1.758291	412.8	11.8	82	6.5	6.9	62.8	918.3	230.7	3373.3	11.5	168.2	71.0	1038.2	28.0		
15	569.1205	2.044758	391.3	10.2	84	6.4	6.8					12.0	204.1	54.0	918.2			
16	581.0693	1.713945	335.4	11.1	88	6.8	6.9											
17		0.797672	137.6	3.3	84	6.8	6.8											
18		1.058944	184.9	6.4	76	6.8	6.9											
19	589.8715	1.890273	421.4	12.0	85	6.7	6.9											
20	583.5023	1.864266	399.9	13.0	85	6.8	6.9	12.3	190.7	154.0	2387.5	12.6	195.3	79.0	1224.8	15.5		
21	575.4948	1.731098	387.0	12.0	84	6.8	6.9					11.2	161.2	92.0	1324.4			
22	516.9415	1.477761	335.4	10.9	90	6.7	6.9											
23	SHUT DOWN	0.578074	94.6	2.6	84	6.8	6.9											
24	SHUT DOWN	0.351234	103.2	2.9	83	6.7	6.9											
25	SHUT DOWN	0.292906	43.0	2.4	82	6.7	6.8											
26	SHUT DOWN	0.410421	103.2	3.4	80	6.8	6.9											
27	SHUT DOWN	0.359867	98.9	2.9	80	6.7	6.9											
28	SHUT DOWN	0.355433	77.4	2.0	78	6.7	6.8											
29	SHUT DOWN	0.274212	43.0	1.9	79	6.7	6.7											
30	SHUT DOWN	0.356337	55.9	1.9	78	6.7	6.8											
31	SHUT DOWN	0.455081	103.2	3.6	80	6.7	6.7											
TOT	8636.4015	37.596887	8191.5	242.2					1796.7		8950.7		1093.4		6788.9			
AVG	539.7751	1.212803	264.2	7.8	82			39.6	598.9	195.8	2983.6	11.6	182.2	72.7	1131.5	24.9	193.4	3043.6

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

(2-16)
AS0000019
PERMIT NUMBER(17-19)
001
DISCHARGE NUMBER

FACILITY

LOCATION

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2005	12	01	FROM	2005	12	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING			(4 Card Only) QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE			
		(46-53)	(54-61)	UNITS	(38-45)	(46-53)	(54-61)	UNITS						
		30-DAY AVERAGE	DAILY MAXIMUM		MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM							
50050 1-0-0	SAMPLE MEASUREMENT		2.044758	mgd					0	Continuous	Recorder			
FLOW	PERMIT REQUIREMENT		2.9							"	"			
00310 1-0-0	SAMPLE MEASUREMENT	3043.6	3043.6	lbs/day	193.4	193.4	193.4		0	Once/Month	Composite			
BOD5	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX		N/A	N/A	N/A	mg/l		" "	"			
00530 1-0-0	SAMPLE MEASUREMENT	2983.6	3373.3	lbs/day	154.0	195.8	230.7		0	Once/Week	Composite			
TSS	PERMIT REQUIREMENT	2996	7536		N/A	N/A	N/A	mg/l		" "	"			
03582 1-0-0	SAMPLE MEASUREMENT	598.9	918.3	lbs/day	12.3	39.6	62.8		0	Once/Week	Grab (2)			
OIL & GREASE	PERMIT REQUIREMENT	763	1907		N/A	N/A	N/A	mg/l		" "	" "			
00665 1-0-0	SAMPLE MEASUREMENT	182.2	204.1	lbs/day	9.8	11.6	12.6		0	One Set/Month (3)	Composite			
TOTAL PHOSPHORUS	PERMIT REQUIREMENT	192	309		N/A	N/A	N/A	mg/l		" "	"			
00600 1-0-0	SAMPLE MEASUREMENT	1131.5	1324.4	lbs/day	54.0	72.7	92.0		0	One Set/Month (3)	Composite			
TOTAL NITROGEN	PERMIT REQUIREMENT	1200	2100		N/A	N/A	N/A	mg/l		" "	"			
00610 1-0-0	SAMPLE MEASUREMENT				15.5	24.9	31.2		0	Once/Week	Composite			
TOTAL AMMONIA	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		" "	"			
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE DATE					
LANCE IHAKA Manager, Engineering and Maintenance														
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR MO DAY			

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-15)

AS0000019

PERMIT NUMBER

(17-19)

001

DISCHARGE NUMBER

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY:

LOCATION:

FROM

MONITORING PERIOD

YEAR	MO	DAY	YEAR	MO	DAY
2005	12	01	2005	12	31

(20-21)

(22-23)

(24-25)

(26-27)

(28-29)

(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		QUANTITY OR LOADING (4 Card Only)			QUALITY OR CONCENTRATION (4 Card Only)				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		(46-53)		(54-61)	(38-45)		(46-53)	(54-61)			
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS			
00011 - 1-0-0	SAMPLE MEASUREMENT					82	90		0	Continuous	Continuous
TEMPERATURE	PERMIT REQUIREMENT					90	95	° F		"	"
00400 1-0-0	SAMPLE MEASUREMENT				6.4		7.2		1	Continuous	Continuous
pH	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		"	"
01119 - 1-0-0	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite
TOTAL COPPER	PERMIT REQUIREMENT					66	108	µg/L		"	"
01094 - 1-0-0	SAMPLE MEASUREMENT					193.0	193.0		0	Once/Month	Composite
TOTAL ZINC	PERMIT REQUIREMENT					1545	1770	µg/L		"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 month and 5 years)							TELEPHONE		
LANCE IHAKA Manager, Engineering and Maintenance									DATE		
TYPE OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							AREA CODE	NUMBER	YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had a pH of 6.4 which was below the limit. The pH exceeded the one-hour individual excursion limit during the month of December. The pH were corrected immediately upon detection. The team member has been retrained and was issued a written warning for poor job performance.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 9

75 Hawthorne Street
San Francisco, CA 94105-3901

APR 29 1997

Mr. Norman Wei
Corporate Environmental Manager
StarKist Foods, Inc.
1054 Ways Street
Terminal Island, CA 90731

Mr. James L. Cox
Director of Engineering and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

Re: Submittal of NPDES Permit Renewal Applications for StarKist Samoa, Inc. (AS0000019)
and VCS Samoa Packing Company (AS0000027)

Dear Mr. Wei and Mr. Cox:

Your request to submit the National Pollutant Discharge Elimination System (NPDES) permit renewal applications for StarKist Samoa, Inc. and VCS Samoa Packing Company at a date later than 180 days prior to the expiration date of these permits is granted, pursuant to 40 CFR 122.21(d). Please submit the applications to this office by May 30, 1997.

As discussed with Steve Costa, your consultant, and my staff, the reason for the request for delay in submittal of the applications is the pending sale of Van Camp Seafood Company, Inc. The company is filing a voluntary petition under Chapter 11 of the U.S. Bankruptcy Code, and financial arrangements are being made with the company's contractors, vendors and suppliers to insure continued payment. Since Dr. Costa is a sub-contractor to CH2MHill, hired by the canneries to prepare the permit applications, the reorganization of Samoa Packing has temporarily delayed his preparation of the applications. It is anticipated that these financial arrangements will be resolved in a few weeks.

We look forward to receiving the renewal applications at the end of May. Should you have any questions, please contact Pat Young, American Samoa Program Manager at 415/744-1594 or Doug Liden, Permit Writer at 415/744-1920.

Sincerely,

A handwritten signature in cursive script, appearing to read "Alexis Strauss".
Alexis Strauss

Acting Director
Water Division

cc: Norman Wei, StarKist Foods, Inc.
James Cox, Van Camp Seafood Company, Inc.
Togipa Tausaga, ASEPA, American Samoa
Barry Mills, StarKist Samoa, American Samoa
William D. Perez, VCS Samoa Packing Company, American Samoa
Karin, Noack, CH2M Hill



6 June 1997

Sheila Wiegman
American Samoa Environmental Protection Agency
American Samoa Government
Pago Pago, American Samoa 96799

Dear Ms Wiegman:

**Re: Application for Water Quality Certification and Zones of Mixing
for the Joint Cannery Outfall operated by:
StarKist Samoa (NPDES Permit AS0000019), and
VCS Samoa Packing (NPDES Permit AS0000027)**

This letter is an application for Water Quality Certification, and Zones of Mixing (ZOMs) for certain constituents, of the treated wastewater discharge from StarKist Samoa and VCS Samoa Packing (the canneries) through the Joint Cannery Outfall (JCO) into the Outer Harbor portion of Pago Pago Harbor. It is noted that the outfall design and configuration, discharge point, and characteristics of the treated wastewater have not changed since the issuance of the existing Water Quality Certificate. There are existing ZOMs for total nitrogen (TN), total phosphorous (TP), and ammonia. Studies over the period of the existing NPDES permits have indicated the need and justification for ZOMs for copper and zinc.

Application for the renewal of existing ZOMs and establishment of additional ZOMs, as indicated above, is made pursuant to section 24.0208 of the American Samoa Water Quality Standards (ASWQS), 1989 Revision. This application is being submitted in conjunction with the renewal of the NPDES permits for the canneries, which expire 27 October 1997. Please be advised that the submittal date for renewal of the NPDES permits was delayed by 30 days by USEPA for reasons associated with the recent sale of VCS Samoa Packing and the resultant need to re-establish contractual agreements between Samoa Packing and its consultant CH2M HILL. The applications for renewal of the NPDES permits by both of the canneries have been submitted to USEPA.

StarKist Samoa and VCS Samoa Packing are herein applying for the following zones of mixing:

- (1) Renewal of the ZOM previously established for TN.
- (2) Renewal of the ZOM previously established for TP
- (3) Renewal of the ZOM previously established for ammonia
- (4) Establishment of a ZOM for copper
- (5) Establishment of a ZOM for zinc

All documentation describing the existing ZOMs, and the supporting information required by the ASWQS, was submitted during the initial applications. There have been no changes in the conditions previously described. In addition, various studies conducted over the past five years have shown no deleterious effects or violations of water quality standards related to the existing ZOMs. The studies have clearly indicated that the water quality standards are met at the edges of the ZOMs as required. Reports of all of the studies completed to date have been submitted to ASEPA. We believe that no additional material is needed to describe or justify the continuation of the existing ZOMs in the same geometry and size currently permitted.

During studies required under the NPDES permits, results of which have been previously submitted to ASEPA, levels of copper and zinc exceeding water quality criteria were detected in the treated wastewater effluent from both canneries. At the request of USEPA, a supplementary source identification study was conducted at VCS Samoa Packing (results of the study were previously supplied to ASEPA). The results of this study indicated that the source of zinc is attributable to leaching from the galvanized equipment used in the cannery and at dockside for the handling of fish. The source of copper is less well understood but appears to be associated with copper, brass, and bronze fittings and equipment and may also be associated with condenser materials and operation.

The use of zinc and copper is ubiquitous and unavoidable in machinery, plumbing, and equipment, particularly in a marine dominated environment. Substitution of other materials at the scales of use in the canneries is not practicable. Therefore, the canneries are hereby applying for ZOMs for both zinc and copper. A ZOM for each of these constituents geometrically similar to that previously established for ammonia is requested. The ZOM established for ammonia is consistent with a dilution of 80:1 in the receiving water which occurs within approximately 12 meters from each of the discharge ports of the existing diffuser.

All technical information regarding the diffuser operation and performance was submitted to ASEPA during the process of establishment of the currently existing ZOMs, including the existing ZOM for ammonia. The only additional information required are descriptions of the expected zinc and copper concentrations, in the receiving water, in the effluent, and at the edge of the ZOM under the appropriate dilution characteristics. These data are provided below for both zinc and copper.

Zinc and copper in the receiving water (background) have been measured during three water quality monitoring sampling campaigns (March 1996, October 1996, and March 1997). The results of the first two campaigns have been previously documented in reports submitted to USEPA and ASEPA. The results of the third, and most recent, field data collection is currently being prepared for submittal. However, the laboratory data for zinc and copper are available and are included in the discussion below. Receiving water samples were collected in the following Pago Pago Harbor locations:

- In the "Inner Harbor" which is distant from the discharge site, influenced by other potential sources of zinc and copper, and in the area of poorest flushing and circulation in the harbor (Stations 11 and 13)
- Outside the harbor mouth ("Transition Zone") in an area that represents the condition for near coastal waters adjacent to the mouth of the harbor (Stations 5 and 5A)
- On the boundary of the existing mixing zone established for TN and TP which represents conditions of the receiving water into which the discharge is being diluted (Stations 15, 16, and 18)

The results of all three data sets, at each of the stations listed above, are summarized in Attachment I. Based on these data, an ambient receiving water (background) zinc concentration of $<20 \mu\text{g/l}$ and an ambient copper concentration (in the vicinity of the discharge) of $<0.5 \mu\text{g/l}$ are appropriate for determination of mixing zone size.

Zinc and copper have been measured in the effluent of each cannery during the semi-annual effluent monitoring. Nine sets of data have been collected, eight of which have been reported to ASEPA. Results from the ninth sampling, done in March 1997, have been received from the laboratory, and the report to ASEPA and USEPA is currently being prepared. The data from all nine sampling episodes are summarized in Attachment II. Based on the data listed and the calculations summarized in Attachment II, the following maximum expected effluent concentrations were determined to assess the mixing zone requirements:

- For zinc the expected maxima are 324, 1254, and $513 \mu\text{g/l}$ for StarKist Samoa, VCS Samoa Packing, and the combined JCO discharge, respectively. Note that these values are considerably higher than the reported maxima. The expected values are based on the statistical approach referenced in Attachment II, and are used to determine a "worst case" for sizing the mixing zone. It should also be noted that the October 1993 samples were reanalyzed for a number of constituents, including zinc, and the results of the reanalysis are included in the calculations shown in the attachment.
- For copper the expected maxima are 35, 55, and $36 \mu\text{g/l}$ for StarKist Samoa, VCS Samoa Packing, and the combined JCO discharge, respectively. Note that these values are also considerably higher than the reported maxima, except for the VCS Samoa Packing reported maximum of $54 \mu\text{g/l}$. The reported maxima for VCS Samoa Packing was not used in the calculation of the expected maximum value listed above since it appears (based on inspection) to be an outlier that would substantially bias the expected maximum value. As in the case of zinc described above, the expected values are based on the statistical approach referenced in Attachment II, and are used to determine a "worst case" for sizing the mixing zone. For some samples, copper was not detected and, except for the March 1996 sample,

the concentrations used in the calculations was assumed to be the detection limit reported. The detection limit during March 1996 was considered abnormally high, and an alternative laboratory has since been selected and used for the semi-annual analyses.

The concentrations in the VCS Samoa Packing effluent are generally higher because much of the zinc (and possibly copper as well) is introduced during the thawing process and VCS Samoa Packing uses a recycled thaw water process stream rather than a once through thaw water process stream as done by StarKist Samoa.

Using the information described above for background (ambient receiving water) and effluent concentrations, the dilution required to meet water quality criteria can be calculated as follows:

$$D_R = (C_E - C_A) / (C_S - C_A)$$

where:

D_R is the dilution required to reduce the concentration (C_E) to C_S

C_E is the effluent concentration

C_S is the concentration desired (water quality criteria or standard)

C_A is the ambient receiving water (or background) concentration.

Using the water quality criteria for zinc (84 µg/l) and copper (2.9 µg/l), the plots of required dilution versus effluent concentration shown in Attachment III were generated. Dilutions of 20:1 to 25:1 will be sufficient to reduce the maximum measured concentrations (exhibited by the VCS Samoa Packing samples). Under the range of design flow conditions, and worst case environmental conditions, dilutions of 25:1 are achieved in a distance of approximately 4 to 6 meters from the discharge ports of the diffuser. The dilution predictions are based on the technical information provided in the support information previously submitted to ASEPA during the definition of the currently existing ZOMs. It is noted that these predictions were substantiated by dye studies and water quality monitoring.

In support of the requested zones of mixing described above, the following points have been considered:

The ZOMs are required for the continued operation of the canneries and such operation is in the public interest.

The establishment of the ZOMs does not endanger human health or safety, and it is noted that the discharge is located at a depth of 176 feet in the outer portion of the harbor.

Compliance with the existing water quality standards at the point of discharge is not practicable and such compliance would prevent the canneries from operating.

There will be no effect on marine ecology of the receiving waters outside of the mixing zones by defining the requested ZOMs. It is noted that maximum exposure time of an organism entrained into the discharge plume is predicted to be less than 10 to 12 seconds.

Complete and detailed descriptions of the present conditions in Pago Pago Harbor, the comparison of those conditions to the ASWQS, and the concentrations of constituents proposed for discharge into the requested mixing zones, have been previously submitted to ASEPA with the original application for the existing ZOMs, in this application as described above, and/or in the various reports required under that NPDES permits for the canneries which have been submitted to ASEPA over the past five years.

If any additional information is required or if you or your staff have any comments, concerns, or questions, please call or fax me at the numbers provided below.

Phone: (707) 826-0717 or 826-7662
Fax: (707) 822-0567
email: glatzeldacosta@sprintmail.com

Thank you for your time and attention to this matter,

Sincerely,

Steven L. Costa, Ph.D.

cc: Norman Wei, StarKist Foods
Barry Mills, StarKist Samoa
James Cox, Van Camp Seafoods
Herman Gebauer, VCS Samoa Packing
Pat Young, USEPA-Region 9
Doug Liden, USEPA-Region 9
Topiga Tausaga, ASEPA
Karin Noack, CH2M HILL
David Wilson, CH2M HILL

This letter constitutes an application for zones of mixing and any required water quality certification by American Samoa Environmental Protection Agency and American Samoa Environmental Quality Commission for discharge through the Joint Cannery Outfall in Pago Pago Harbor, American Samoa, by VCS Samoa Packing Company, Inc.

James Cox, Director , Engineering and Environmental Affairs
Van Camp Seafood Company, Inc.

This letter constitutes an application for zones of mixing and any required water quality certification by American Samoa Environmental Protection Agency and American Samoa Environmental Quality Commission for discharge through the Joint Cannery Outfall in Pago Pago Harbor, American Samoa, by StarKist Samoa, Inc.

Norman Wei, Senior Manager, Environmental Engineering
StarKist Foods, Inc.

ATTACHMENT I

Receiving Water Zn and Cu Concentrations

Zinc and Copper Analysis Results Pago Pago Receiving Harbor Water Quality Monitoring							
Station	Depth ¹ (feet)	Zinc Concentration (µg/l) ² for Sampling Times			Copper Concentration (µg/l) ² for Sampling Times		
		March 1996	November 1996	March 1997	March 1996	November 1996	March 1997
Transition Zone Samples							
5	30	<20	<20	<40	<25	<2	<0.5
	120	<20	<20	<40	<25	<2	<0.5
	142, 240, 160	<20	<20	<40	<25	<2	<0.5
5A	30	<20	<20	<40	<25	<2	<0.5
	120	<20	<20	<40	<25	<2	<0.5
	155, 220, 160	<20	<20	<40	<25	<2	<0.5
Inner Harbor Samples							
11	30	<20	<20	<40	<25	<2	<0.5
	120	<20	<20	<40	<25	<2	<0.5
	160, 164, 154	<20	<20	<40	<25	<2	1.0
13	3	<20	<20	<40	<25	<2	<0.5
	31, 29, 30	<20	<20	<40	<25	<2	0.9
TN and TP ZOM Boundary Samples							
15	3	<20	-	-	<25	-	<0.5
	30	<20	<20	<40	<25	<2	<0.5
	60	-	<20	-	-	<2	-
	50	-	-	<40	-	-	<0.5
	64, 92, 90	<20	<20	<40	<25	<2	<0.5
16	30	<20	<20	<40	<25	<2	<0.5
	60	<20	<20	<40	<25	<2	<0.5
	197, 193, 190	<20	<20	<40	<25	<2	<0.5
18	30	<20	<20	<40	<25	<2	<0.5
	60	<20	<20	<40	<25	<2	<0.5
	194, 192, 188	<20	<20	<40	<25	<2	<0.5
¹ Near bottom samples were collected within about ten feet of the bottom depths shown for each station for the three sampling times, respectively. ² The less than symbol (<) indicates concentration below the reporting limit as shown.							

DL = 0.5

ATTACHMENT II

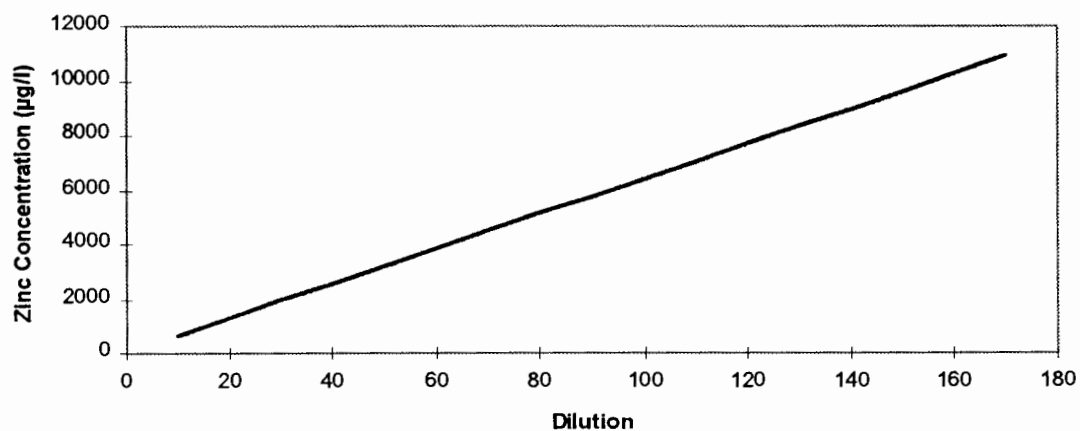
Effluent Zn and Cu Concentrations

Sample	StarKist Samoa Sample			VCS Samoa Packing Sample			Combined Sample ⁶		
	Zinc (µg/l)	Copper (µg/l)	Flow (mgd)	Zinc (µg/l)	Copper (µg/l)	Flow (mgd)	Zinc (µg/l)	Copper (µg/l)	Flow (mgd)
Feb 1993	92	<10	1.20	380	21	0.84	211	15	2.04
Oct 93	130	<10	1.43	400	<10	0.66	215	10	2.09
Oct 93 ¹	180	-	1.43	540	-	0.66	294	-	2.09
Feb 94	140	15	1.20	660	13	0.61	315	14	1.81
Oct 94	84	<10	1.36	760	23	0.84	342	15	2.20
Mar 95	120	6	1.41	570	9	0.59	253	7	2.00
Feb 96 ²	63	13	1.30	440	54	0.53	172	25	1.83
Mar 96	81	<25 ⁵	0.95	740	<25 ⁵	0.54	320	-	1.49
Nov 96	117	5	1.65	471	11	0.68	220	7	2.33
Mar 1997	150	4.7	1.46	484	11	0.57	244	6	2.03
Average	116	9		545	19		259	12	
Maximum	180	15		760	54		342	25	
Expected ³	324	35		1254	248		513	70	
Average ⁴					14			11	
Maximum ⁴					23			15	
Expected ⁴					55			36	

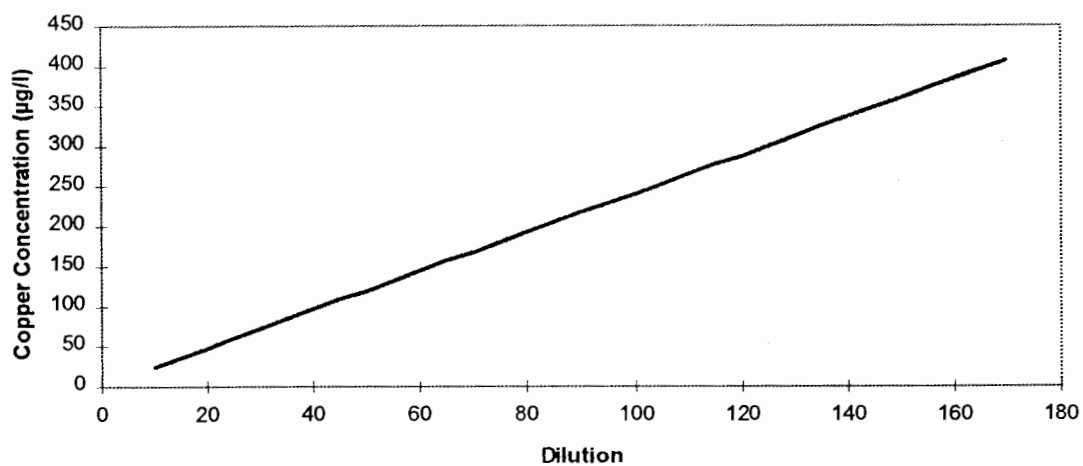
¹ October 93 sample re-tested for zinc
² Delayed sampling from previous fall
³ Based on 99-percentile for log normal distribution at 99 percent confidence limits following method given in the Water Quality-based Toxics Control TSD (EPA/505/2-90-001, March 1991)
⁴ Based on elimination of the 54 µg/l copper concentration from February 1996 testing
⁵ Values not used in averages because detection limit considered abnormally high
⁶ Flow weighted calculation of concentrations

ATTACHMENT III
Required Dilution for Zinc and Copper

Required Dilution for Zinc



Required Dilution for Copper



Star-Kist Foods, Inc.

Rec'd 6/2/97
my
Copy to Doug

Memo

Date: 30 May, 1997

To: Pat Young

From: Norman S. Wei

NSW

Subject: NPDES Permit Renewal for StarKist Samoa

Please find enclosed a copy of StarKist Samoa's permit renewal application.

You can call Steve Costa or me if you have any questions.

Enclosure

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST		B. SECOND	
7 2091 (specify)	Tuna processing & canning	7 2047 (specify)	Pet food processing
C. THIRD		D. FOURTH	
7 2048 (specify)	Fishmeal production	7 3411 (specify)	metal cans manufacturing

VIII. OPERATOR INFORMATION

A. NAME		B. Is the name listed in Item VIII-A also the owner?	
8 STARKIST SAMOA INC		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)		D. PHONE (area code & no.)	
F = FEDERAL S = STATE P = PRIVATE M = PUBLIC (other than federal or state) O = OTHER (specify)		A 684 644 4231	
E. STREET OR P.O. BOX			
P.O. BOX 468			
F. CITY OR TOWN		G. STATE	H. ZIP CODE
B PAGO PAGO TUTUILA		AS	96799
		IX. INDIAN LAND	
		Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)		D. PSD (Air Emissions from Proposed Sources)	
9 N	AS0000019	9 P	
B. UIC (Underground Injection of Fluids)		E. OTHER (specify)	
9 U		9	00-93-01
C. RCRA (Hazardous Wastes)		E. OTHER (specify)	
9 R		9	
		(specify)	
		OCEAN DUMPING Permit	

XI. MAP

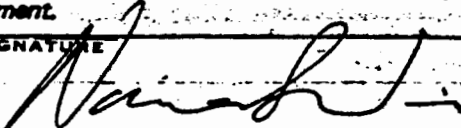
Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Starkist Samoa processes and cans tuna fish and other ingredients for human consumption. It also cans pet food and processes fishmeal. It manufactures its metal cans.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
NORMAN WEI Senior environmental manager		5/30/97
COMMENTS FOR OFFICIAL USE ONLY		
C		

Please print or type in the unshaded areas only.

**FORM
2C
NPDES**



U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

[illegible]

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

OFFICIAL USE ONLY (effluent guidelines sub-categories)

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
All analytical data have been submitted to EPA Region 9 under NPDES condition D.2			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (list all such pollutants below)

☒ NO (go to Item VI-B)

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL N

001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (specify if blank)		4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	e. LONG TERM AVERAGE VALUE		f. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (BOD)	708	6524	602	5011	393	4165	97	mg/l	lb/day			
b. Chemical Oxygen Demand (COD)	710	8851						mg/l	lb/day			
c. Total Organic Carbon (TOC)	290	3606						mg/l	lb/day			
d. Total Suspended Solids (TSS)	373	4267	177	2033	68	731	531	mg/l	lb/day			
e. Ammonia (as N)	119	1261	57	661	33	349	289	mg/l	lb/day			
f. Flow	VALUE	2.12	VALUE	1.61	VALUE	1.27	536	MGD		VALUE		
g. Temperature (winter)	VALUE	N/A	VALUE	N/A	VALUE	N/A	N/A	% °F		VALUE		
h. Temperature (summer)	VALUE	94	VALUE	87	VALUE	82	522	% °F		VALUE		
i. pH	MINIMUM	6.1	MAXIMUM	9.8	MINIMUM	6.5	MAXIMUM	7.8	1526	STANDARD UNITS		

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	e. LONG TERM AVERAGE VALUE		f. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color	X		Believe to be not important.							1				
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate-Nitrite (as N)	X		< 0.01	< 0.12					1	mg/l				

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TEST-ING RE-QUIR-ED	b. BE-LIEVED PRE-SENT	c. BE-LIEVED AB-SENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c. LONG TERM AVG. VALUE (If available)		d. NO. OF ANAL-YSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANAL-YSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X							4					
2M. Arsenic, Total (7440-38-2)		X		0.01						8					
3M. Beryllium, Total, 7440-41-7)			X							4					
4M. Cadmium, Total (7440-43-9)		X		0.01						8					
5M. Chromium, Total (7440-47-3)			X							4					
6M. Copper, Total (7440-50-8)		X		0.015						8					
7M. Lead, Total (7439-92-1)			X							8					
8M. Mercury, Total (7439-97-6)			X							8					
9M. Nickel, Total (7440-02-0)			X							4					
10M. Selenium, Total (7782-49-2)		X		0.015						8					
11M. Silver, Total (7440-22-4)			X	0.13	(Not detected in last 6 analyses during past 3 years)					8					
12M. Thallium, Total (7440-28-0)			X							4					
13M. Zinc, Total (7440-66-6)			X	0.180						8					
14M. Cyanide, Total (57-12-5)			X							4					
15M. Phenols, Total		X		1.3						8					

DIOXIN

2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)

X

DESCRIBE RESULTS

One test (undetected) at detection limit of 9.9 picogram/litre

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)			X							4					
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X							4					
24V. Tetrachloroethylene (127-18-4)			X							4					
25V. Toluene (108-88-3)			X							4					
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X							4					
27V. 1,1,1-Trichloroethane (71-55-6)			X							4					
28V. 1,1,2-Trichloroethane (79-00-5)			X							4					
29V. Trichloroethylene (79-01-6)			X							4					
30V. Trichlorofluoromethane (75-69-4)			X							4					
31V. Vinyl Chloride (75-01-4)			X							4					
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X							8					
2A. 2,4-Dichlorophenol (120-83-2)			X							8					
3A. 2,4-Dimethylphenol (105-67-9)			X							8					
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X							8					
5A. 2,4-Dinitrophenol (51-28-5)			X							8					
6A. 2-Nitrophenol (88-75-5)			X							8					
7A. 4-Nitrophenol (100-02-7)			X							8					
8A. P-Chloro-M-Cresol (59-50-7)			X							8					
9A. Pentachlorophenol (87-86-5)			X							8					
10A. Phenol (108-95-2)		X		0.5						8					
11A. 2,4,6-Trichlorophenol (88-06-2)										8					

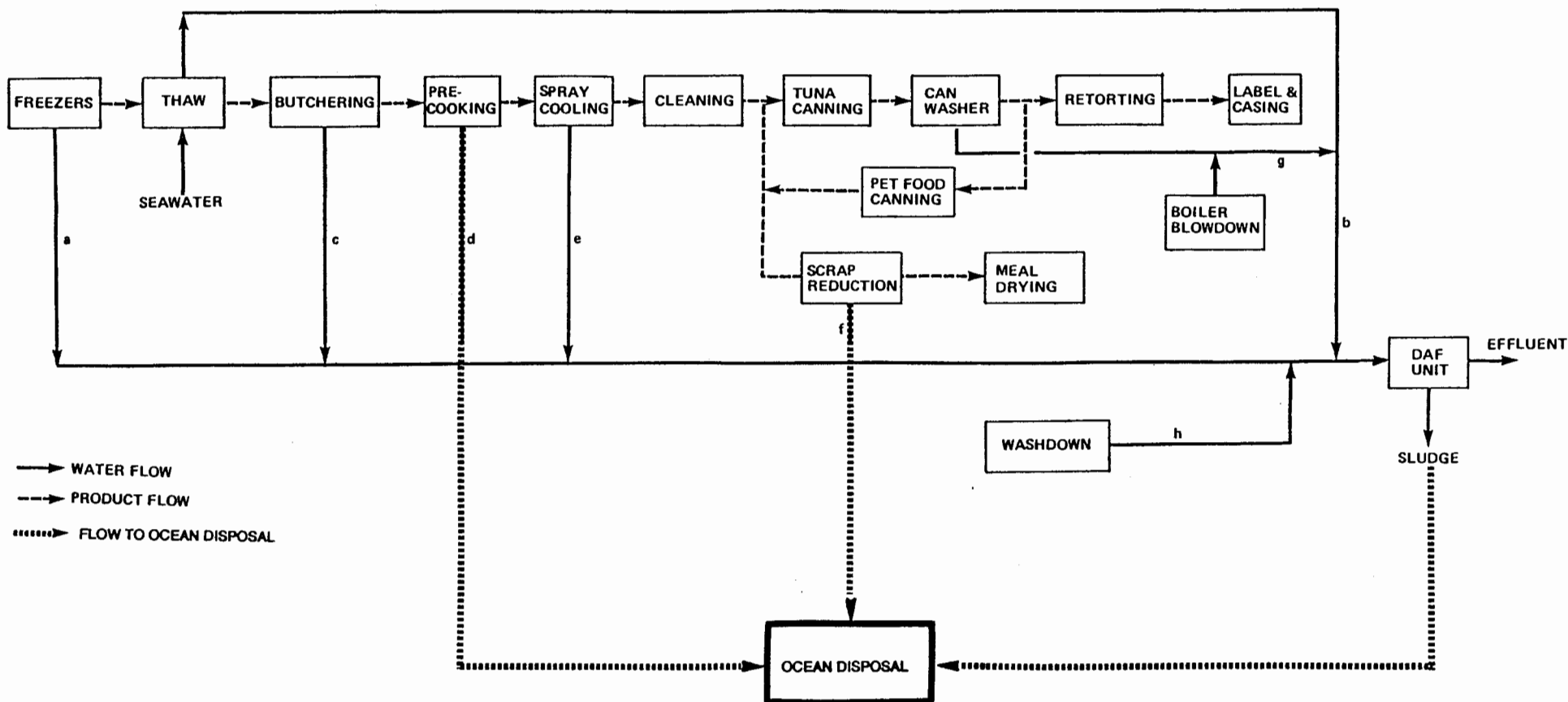
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						d. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3'-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X												
31B. Fluorethane (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-74-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B. Hexachloroethane (67-72-1)			X												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodimethylpropylamine (621-84-7)			X												

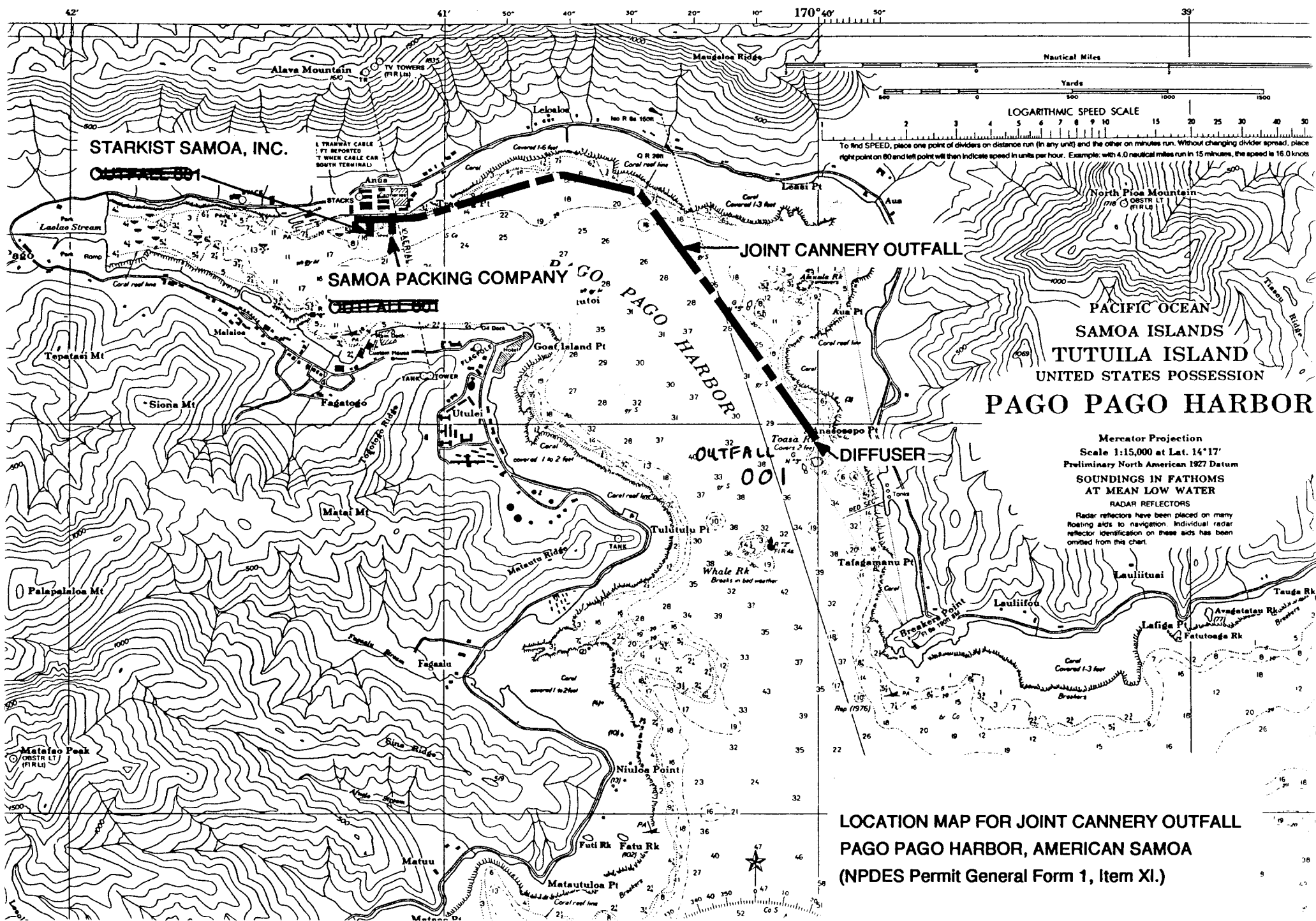
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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	b. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X							4					
18P. PCB-1242 (53469-21-9)			X							4					
19P. PCB-1254 (11097-69-1)			X							4					
20P. PCB-1221 (11104-28-2)			X							4					
21P. PCB-1232 (11141-16-5)			X							4					
22P. PCB-1248 (12672-29-6)			X							4					
23P. PCB-1260 (11096-82-5)			X							4					
24P. PCB-1016 (12674-11-2)			X							4					
25P. Toxaphene (8001-35-2)			X							4					



WATER FLOW DIAGRAM
STARKIST SAMOA, INC.
(NPDES Permit Form 2C, Item IIA.)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 9

**75 Hawthorne Street
San Francisco, CA 94105-3901**

February 26, 1998

Mr. Barry Mills
General Manager
StarKist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

RE: NPDES Permit Renewal
NPDES Permit AS0000019

Dear Mr. Mills:

By way of this letter, we are administratively extending your permit until new ones are issued. All permit requirements and limitations shall stay the same during this interim period with the exception of the ambient monitoring plan. As discussed in more detail below, we are proposing to revise your ambient monitoring program with the goal of better gauging water quality throughout Pago Pago harbor while not increasing the canneries' current level of effort.

Monitoring data collected by the canneries has shown marked improvement in water clarity in inner Pago Pago harbor. This improvement is due undoubtedly to the relocation of the canneries outfall. However, though the clarity of the water in Pago Pago has improved, water quality problems still exist and remain a concern. Various harbor monitoring studies have indicated the presence of heavy metals in the water column (lead, copper and zinc), sediments (lead, mercury, copper, zinc, tributyltin) and fish tissue (chromium, arsenic, lead, mercury, and PCBs). In addition, there still exists a fish advisory warning residents not to eat fish caught in the Harbor.

Although the various monitoring studies have been informative, the monitoring data is sparse, and the source(s) of these pollutants remains unclear. Without a more comprehensive knowledge of conditions in the harbor, it will be difficult to gauge changes in water quality over time, and make informed decisions to protect the public health. Also, without knowing background concentrations of metals, it will be very difficult to determine the dilution necessary for the canneries' discharges to meet water quality standards for certain pollutants (i.e., copper and zinc).

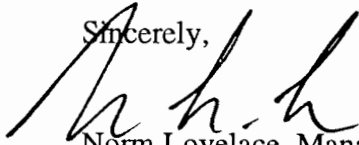
We and ASEPA are soliciting the views and participation of all parties who are or will be affected by or are interested in water pollution control in American Samoa (i.e. Tuna Canneries, Southwest Marine, ASG, ASPA, public). To that end, we hope the canneries will be receptive to playing a more comprehensive role in monitoring Pago Pago harbor. Changes in the canneries' ambient monitoring program would be made in exchange for certain existing monitoring requirements. Therefore, the canneries monitoring effort should not increase, and may decrease.

We hope the canneries will participate us, and ASEPA, in the design of the harbor-wide monitoring program.

As a preliminary step to designing the new receiving water monitoring program, we are currently compiling all data that exists regarding Pago Pago harbor.

Thank you in advance for your anticipated participation in this process. If you have any questions, please contact Carl Goldstein of my staff at (415) 744-2170.

Sincerely,

A handwritten signature in black ink, appearing to read 'N. Lovelace', written over the word 'Sincerely,'.

Norm Lovelace, Manager
Pacific Insular Area Programs

cc: ASEPA

Doug Liden, EPA Region 9

Watershed Approach in Pago Pago Harbor, American Samoa.

Since 1972, the NPDES program has been issuing permits on fairly random basis, depending more on the order the application was received and the political profile of the site than on the true environmental impact of the facility submitting it. Though the program has been largely successful in controlling point-source pollution on a facility by facility basis, it has often masked more complex problems of storm-water and other non-point source pollution. Moreover, attention and resources have been focused more on the industries than the receiving waters that the program was designed to protect.

Pago Pago Harbor in American Samoa is one of many examples showing both the pros and cons of the standard regulatory approach. USEPA took enforcement action against the tuna canneries approximately eight years ago. This action resulted in the building of a much longer outfall pipe and consequently significant improvements in water quality in the harbor. This is a good example of how EPA's command and control approach can work where the problem is clearly understood, and the source is known, discrete, and controllable.

However, though the clarity of the water in Pago Pago has improved dramatically, water quality problems still exist. Toxic heavy metals are reported in various monitoring studies in the water column (lead, copper and zinc), sediments (lead, mercury, copper, and zinc) and fish tissue (chromium, arsenic, lead, and mercury). Based on these findings, there exists a fish advisory warning residents not to eat fish caught in the Harbor. Ironically, improvement in water clarity in the Inner Harbor may well encourage more Samoans to ignore the advisory and continue to fish there.

Unfortunately, monitoring data is sparse, and the source of these metals is largely unknown. A large portion may result from past naval operations in the harbor. Southwest Marine Railway, a major ship and repair facility, is also a likely contributor. Without a clear picture of the severity of the problem and the sources though, it is extremely difficult to determine where limited resources should be directed. In addition, without a comprehensive study of the harbor, it will be impossible to gauge changes in water quality over time, and consequently, the efficacy of regulatory efforts.

One of the approaches widely used by now by EPA to more effectively address the concerns above is referred to as the "Watershed Approach." This approach focuses on collective strategies to attain broader protection of water quality and habitat. This requires a shift from the traditional source-by-source approach to the broader geographic basis where collective decisions can be made. The hydrologic unit on which this new approach is based is the watershed. Because of EPA and ASEPA's shared roles in implementing the water program, the watershed approach will require a high degree of coordination and partnership between the two agencies, during which our respective roles are clearly defined and distinguished.

Throughout the process of converting to the watershed permitting approach, EPA and ASEPA would solicit the views and participation of all parties who are or will be affected by or are interested in water pollution control in American Samoa (i.e. Tuna Canneries, Southwest Marine, BHP Satala, ASPA, POTW, public). This approach should lend itself especially well in the outer islands where the regulatory agencies try to build cooperative relationships with industry. The watershed permitting approach presupposes the integral involvement of all interested parties, or stakeholders, within a given watershed. Therefore, the steps towards implementing the watershed approach, as well as the final, sequential approach itself are all subject to review, revision and possible adaptation to localized, site-specific circumstances. These steps are roughly described below:

1. Delineation of Major Watersheds and Development of Permit Issuance Schedule.

Delineation of the Watersheds should be fairly simple. Most permittees discharge to Pago Pago Harbor. EPA and ASEPA would then issue permits in a synchronized manner by watershed. This places all permits in the state on a five year watershed-based cycle.

2. Review and Assessment of Watershed Information,

EPA/ASEPA would assess major watersheds in accordance with the tentative delineation and schedule of watershed permitting. All available information including 305(b) Water Quality Assessment Reports, 208 Water Quality Management Plans, 319 Nonpoint Source Assessment Reports and Management Programs, special studies performed by tuna canneries and primary data sources such as STORET will be consulted to determine both existing water quality conditions and anticipated future trends and conditions. In order to initiate watershed permitting, a brief assessment report, based entirely on existing information, shall be prepared for each major watershed. This report shall also identify areas of uncertainty, such as data gaps or incongruities. This should be a fairly simple task as data in Pago Pago is scarce. A consultant for the tuna canneries has initiated this step by compiling and summarizing all data collected by the canneries.

3. Conduct Special Monitoring Programs as Necessary

- a. Based on the outcome and recommendations of the major watershed assessments, it may be necessary to revise monitoring programs or carry out special studies in order to adequately characterize water quality conditions and determine necessary point and nonpoint source controls. EPA and ASEPA should assist in developing monitoring programs as necessary to address these cases, in consultation with other agencies and stakeholders involved in data gathering or analysis. Where water quality-limited segments have been identified and as resources allow, pollutant loading and fate and transport models should be identified and monitoring programs conducted to assist in the development of TMDLs/WLAs.

- b. Intensive surveys should be conducted within a year or two following permit issuance in order to provide sufficient time for analysis of the results, revision of WQMA assessments, and development of proposed controls. During a normal, five-year permitting cycle beginning with permit issuance, monitoring programs may be developed and approved during the first year and implemented by the second year. Ordinarily, it is assumed that interim or final results will be available for the third year of the cycle, when watershed assessment begins with analysis of monitoring data.
- 4. **Assessment and Recommendation of Pollutant Controls**
 - a. Using the same information sources identified in 2.a above, and additional information obtained through special monitoring programs (as described in 3 above) and from stakeholders and interested parties, the watershed will be assessed. As is the case for major basin assessments, it remains to be determined who would conduct these assessments. Water quality-limited segments, existing total maximum daily loads/wasteload allocations (TMDLs/WLAs) and segments potentially needing TMDLs/WLAs (taking into account what is known about new sources and future development) shall be identified and measures to reduce or eliminate water quality problems may be suggested. The assessments should also include more specific identification of data gaps and potential means of addressing them (e.g. by means of expanded monitoring programs or intensive surveys, and who should conduct these). (A particular area of interest is whether effluent compliance monitoring in permits could be reduced in return for increased ambient monitoring.)

As the watershed approach becomes established as the means by which all permits and other water pollution control activities in American Samoa are implemented, WQMA assessment will become a regular component of the five-year permitting cycle. Logically, assessments should be conducted or updated following implementation of monitoring programs in each WQMA. Recommendations for pollution control activities and/or revisions to monitoring requirements can then be incorporated into watershed plans or agreements as described in section 5 below.
 - b. Outreach/Coordination and Status: All involved and interested parties should be consulted in determining priority water quality issues within watersheds and how these should be addressed, and in evaluating recommendations for revisions in monitoring programs and establishment of pollutant controls.
- 5. **Development of Watershed Plans/Agreements**

Following completion of watershed assessments and recommendations for pollutant controls, stakeholders will be convened to develop watershed plans, agreements or

management strategies. Such plans/agreements will incorporate any TMDLs/WLAs which may have been adopted and should include discussion of the means by which recommended controls are to be implemented.

6. Permit Issuance

Once watershed plans have been established with the participation of key stakeholders, including permittees, NPDES permits may be drafted and issued to implement them, as appropriate. The first step in achieving this full-fledged watershed permitting approach is to insure that permit issuance is synchronized in each major watershed. With synchronized permits in place by watershed, it will be possible to coordinate watershed-scale pollutant monitoring and/or control programs in an efficient and equitable manner. Ideally, all permits in a watershed may be public noticed and issued in tandem, such that the plan requirements can be incorporated into one or more permits and considered jointly by all interested parties.

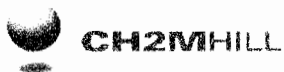
As described in the various sections above, other elements of the watershed permitting approach such as watershed assessment, monitoring, and planning may occur in selected watersheds or sub-basins during the next five years. Some watershed projects or overall assessment efforts are currently underway and others are being planned or are subject to the availability of grant funding and other resources. As these projects are undertaken, their results and/or recommendations may be incorporated into permits as appropriate even during this transitional period.

Relationship of Watershed Permitting and Other Pollutant Control Programs

The watershed permitting approach is organized around the five year NPDES permit duration. Other pollutant control programs being implemented in Samoa, such as nonpoint source management, aquifer protection permitting, 404 dredge and fill permitting, underground injection control and other drinking water protection efforts--as well as indirect or underlying regulatory functions such as water quality standard setting, 305(b) water quality assessments, the continuing planning process, 208 water quality management planning and development of total maximum daily loads/wasteload allocations--are not bound by the same scheduling constraints as NPDES permitting and therefore may not be as readily adaptable to a rotating, sequential treatment of watersheds and sub-basins as is described above.

In initiating and converting the NPDES program in American Samoa to a watershed permitting approach, EPA is not proposing that other water quality management programs should re-align their activities or cycles to coincide with the schedule established here. Those activities should proceed on their own established schedules, or on an as-needed basis as required by statute or regulation. Rather, the activities and their results or expected outcomes should be described and taken into account in developing watershed assessments, the third step of the five-year watershed permitting cycle. In the following steps of the cycle, plans or agreements and the

pollution control measures recommended in them should be developed and implemented in consideration of and with participation by stakeholders involved in all other, non-NPDES activities occurring in the watershed or sub-basin. Thus, the watershed plan or agreement will represent a comprehensive water quality management plan similar to those required by Section 208 of the Clean Water Act. In certain cases, it may even be appropriate to re-align (if necessary) designated 208 planning areas to conform with watershed, or to group watershed assessments and plans into revised 208 plans, which must be updated 'as needed' under 40 CFR Part 130.6(e).



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13 April 2005

Mr. Carl Goldstein
Pacific Insular Area Programs
CMD-1
Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Mr. Peter Peshut
American Samoa Environmental
Protection Agency
American Samoa Government
P.O. Box 368A
Pago Pago, American Samoa 96799

RE: Corrections to "StarKist Samoa Effluent Priority Pollutant Analysis - September 2004 Sampling", Technical Memorandum, CH2M HILL, 22 December 2004.

During review of the Technical Memorandum describing the results of the priority pollutant analysis done for the StarKist Samoa wastewater effluent (September 2004 sample) it was discovered that Tables 4, 5, and 6 were incorrect. Enclosed please find two copies of the corrected Tables (pages 7-10). Also enclosed is a replacement for page 3 which included a brief discussion of the Tables in question. Please replace the existing pages 3, 7-10) with the corrected versions. Note that the results of the analyses are not significantly different and the detailed laboratory data included with the report was correct and does not require revision.

We apologize for any inconvenience or confusion. Please call us if you have any questions or comments on the enclosed report,

Sincerely,

Karen A. Glatzel
Steven L. Costa

Enc: Two copies of corrected Tables 4, 5, and 6 and page 3 of the text.

cc: Steve Erickson, Del Monte Foods (w/one copy of enclosure)
Phil Thirkel, StarKist Samoa (w/one copy of enclosure)
Joe Carney, StarKist Samoa (w/one copy of enclosure)
David Wilson, CH2M HILL (w/one copy of enclosure)

Metals

The effluent sample results for metals indicates that seven metals were detected as present, aluminum, barium, boron, cadmium, iron, manganese, mercury, and zinc (Table 3). Four other metals, antimony, arsenic, selenium, and titanium, were estimated (designated as B) between the method reporting limit (MRL) and the method detection limit (MDL).

Organochlorine Pesticides and PCB's

The effluent sample test results indicate no constituents in this category were detected.

Volatile Organics and Semi-Volatile Organics

Volatile organics analysis of the effluent sample indicated that one constituent, toluene, was detected at an estimated concentration of 0.3 µg/l (Table 5), which is well below water quality criteria. All other constituents were reported below the MDL.

The semi-volatile analysis results (Table 6) for the effluent sample reported one constituent being detected. Phenol was reported at 220 µg/l, which is well below water quality criteria.

<p style="text-align: center;">Table 4. StarKist Samoa Effluent Priority Pollutant Organochlorine Pesticides and Polychlorinated Biphenyls Analysis September 2004</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
alpha-BHC	0.23	U, i	µg/l	5	0.23	0.23	EPA 3520C	608M
beta-BHC	0.052	U, i		5	0.052	0.052		
gamma-BHC (Lindane)	0.025	U, i		5	0.052	0.025		
delta-BHC	0.0073	U		5	0.052	0.0073		
Heptachlor	0.0098	U, i		5	0.052	0.0098		
Aldrin	0.042	U, i		5	0.052	0.042		
Heptachlor Epoxide	0.0048	U, i		5	0.052	0.0048		
Endosulfan I	0.0062	U, i		5	0.052	0.0062		
Dieldrin	0.0036	U		5	0.052	0.0036		
4,4'-DDE	0.052	U, i		5	0.052	0.052		
Endrin	0.043	U, i		5	0.052	0.043		
Endosulfan II	0.0098	U		5	0.052	0.0098		
4,4'-DDD	0.074	U, i		5	0.074	0.074		
Endrin Aldehyde	0.0062	U		5	0.052	0.0062		
Endosulfan Sulfate	0.0073	U		5	0.052	0.0073		
4,4'-DDT	0.013	U		5	0.052	0.013		
Toxaphene	1.2	U, i		5	5.2	1.2		
Chlordane	0.76	U, i		5	5.2	0.76		
Aroclor 1016	0.11	U		1	1.1	0.11		
Aroclor	0.066	U		1	1.1	0.066		
Aroclor 1232	0.045	U		1	1.1	0.045		
Aroclor 1242	0.087	U		1	1.1	0.087		
Aroclor 1248	0.018	U		1	1.1	0.018		
Aroclor 1254	0.0087	U		1	1.1	0.0087		
Aroclor 1260	0.022	U		1	1.1	0.022		

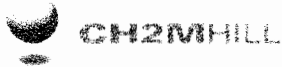
Table 5.
StarKist Samoa Effluent Priority Pollutant
Volatile Organic Analysis
September 2004.

Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Chloromethane	0.31	U	µg/l	1	5.0	0.31	none	624
Vinyl Chloride	0.58	U			5.0	0.58		
Bromomethane	0.81	U			5.0	0.81		
Chloroethane	0.46	U			5.0	0.46		
Trichlorofluoromethane (CFC 11)	0.49	U			5.0	0.49		
1,1-Dichloroethene (1,1-DCE)	0.48	U			5.0	0.48		
Dichloromethane (Methylene Chloride)	0.21	U			5.0	0.21		
trans-1,2-Dichloroethene	0.19	U			5.0	0.19		
1,1-Dichloroethane (1,1-DCA)	0.34	U			5.0	0.34		
Chloroform	0.21	U			5.0	0.21		
1,1,1-Trichloroethane (TCA)	0.45	U			5.0	0.45		
Carbon Tetrachloride	0.38	U			5.0	0.38		
Benzene	0.27	J			5.0	0.27		
1,2-Dichloroethane (EDC)	0.12	U			5.0	0.12		
Trichloroethene (TCE)	0.46	U			5.0	0.46		
1,2-Dichloropropane	0.19	U			5.0	0.19		
Bromodichloromethane	0.17	U			5.0	0.17		
2-Chloroethyl Vinyl Ether	0.62	U			10.0	0.62		
trans-1,3-Dichloropropene	0.17	U			5.0	0.17		
Toluene	0.30	J			5.0	0.25		
cis-1,3-Dichloropropene	0.17	U			5.0	0.17		
1,1,2-Trichloroethane	0.21	U			5.0	0.21		
Tetrachloroethene (PCE)	0.43	U			5.0	0.43		
Dibromochloromethane	0.15	U			5.0	0.15		
Chlorobenzene	0.18	U			5.0	0.18		
Ethylbenzene	0.33	U			5.0	0.33		
Bromoform	0.28	U			5.0	0.28		
1,1,2,2-Tetrachloroethane	0.25	U			5.0	0.25		
1,3-Dichlorobenzene	0.17	U			5.0	0.17		
1,4-Dichlorobenzene	0.17	U			5.0	0.17		
1,2-Dichlorobenzene	0.19	U			5.0	0.19		
Acrolein	4.3	U			50	4.3		
Acrylonitrile	0.45	U			10	0.45		

Table 6.
StarKist Samoa Effluent Priority Pollutant
Semi-Volatile Analysis, September 2004

Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
N-Nitrosodimethylamine	0.96	U	µg/l	1	50	0.96	3520C	625
Bis(2-chloroethyl) Ether	0.67	U			20	0.67		
Phenol	220=				20	0.65		
2-Chlorophenol	0.63	U			20	0.63		
1,3-Dichlorobenzene	0.71	U			20	0.71		
1,4-Dichlorobenzene	0.64	U			20	0.64		
1,2-Dichlorobenzene	0.87	U			20	0.87		
Bis(2-chloroisopropyl) Ether	0.63	U			20	0.63		
Hexachloroethane	0.58	U			20	0.58		
N-Nitrosodi-n-propylamine	1.0	U			20	1.0		
Nitrobenzene	1.2	U			20	1.2		
Isophorone	0.50	U			20	0.50		
2-Nitrophenol	0.75	U			20	0.75		
2,4-Dimethylphenol	0.53	U			20	0.53		
Bis(2-chloroethoxy)methane	0.56	U			20	0.56		
2,4-Dichlorophenol	0.60	U			20	0.60		
1,2,4-Trichlorobenzene	0.71	U			20	0.71		
Naphthalene	0.73	U			20	0.73		
Hexachlorobutadiene	0.59	U			20	0.59		
4-Chloro-3-methylphenol	0.98	U			20	0.98		
Hexachlorocyclopentadiene	2.5	U			20	2.5		
2,4,6-Trichlorophenol	0.41	U			20	0.41		
2-Chloronaphthalene	0.58	U			20	0.58		
Acenaphthylene	0.48	U			20	0.48		
Dimethyl Phthalate	0.51	U			20	0.51		
2,6-Dinitrotoluene	0.70	U			20	0.70		
Acenaphthene	0.57	U			20	0.57		
2,4-Dinitrophenol	4.5	U			50	4.5		
4-Nitrophenol	3.9	U			50	3.9		

Table 6 (continued). StarKist Samoa Effluent Priority Pollutant Semi-Volatile Analysis, September 2004								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
2,4-Dinitrotoluene	0.55	U	µg/l	1	20	0.55	3520C	625
Fluorene	0.65	U			20	0.65		
4-Chlorophenyl Phenyl Ether	0.56	U			20	0.56		
Diethyl Phthalate	0.58	U			20	0.58		
4,6-Dinitro-2-methylphenol	4.3	U			50	4.3		
N-Nitrosodiphenylamine	1.1	U			20	1.1		
1,2-Diphenylhydrazine	1.1	U			20	1.1		
4-Bromophenyl Phenyl Ether	0.55	U			20	0.55		
Hexachlorobenzene	1.3	U			20	1.3		
Pentachlorophenol (PCP)	4.9	U			50	4.9		
Phenanthrene	0.97	U			20	0.97		
Anthracene	1.3	U			20	1.3		
Di-n-butyl Phthalate	0.73	U			20	0.73		
Fluoranthene	1.4	U			20	1.4		
Benzidine	18	U			100	18		
Pyrene	1.5	U			20	1.5		
Butyl Benzyl Phthalate	0.94	U			20	0.94		
3,3'-Dichlorobenzidine	0.54	U			50	0.54		
Benz(a)anthracene	1.2	U			20	1.2		
Chrysene	1.6	U			20	1.6		
Bis(2-ethylhexyl) Phthalate	3.8	U			20	3.8		
Di-n-octyl Phthalate	1.3	U			20	1.3		
Benzo(b)fluoranthene	1.2	U			20	1.2		
Benzo(k)fluoranthene	1.7	U			20	1.7		
Benzo(a)pyrene	1.4	U			20	1.4		
Indeno(1,2,3-cd)pyrene	1.4	U			20	1.4		
Dibenz(a,h)anthracene	1.6	U			20	1.6		
Benzo(g,h,i)perylene	1.7	U			20	1.7		



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23 December 2004

Mr. Carl Goldstein
Pacific Insular Area Programs
CMD-1
Environmental Protection Agency
75 Hawthorne Street
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Mr. Peter Peshut
American Samoa Environmental
Protection Agency
American Samoa Government
P.O. Box 368A
Pago Pago, American Samoa 96799

Enclosed are two copies of the 2004 StarKist Samoa Priority Pollutant Scan (September 2004 Sampling) required by Section D.2 of the NPDES permit (AS 0000019). The sampling and analysis required were completed without significant problems. These data will be used for the NPDES permit renewal application due in mid-2005.

Please call us if you have any questions or comments on the enclosed report,

Sincerely,

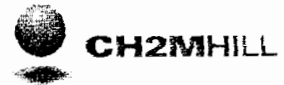
A handwritten signature in cursive script, appearing to read "Karen A. Glatzel".

A handwritten signature in cursive script, appearing to read "Steven L. Costa".

Karen A. Glatzel
Steven L. Costa

Cc: Steve Erickson, Del Monte Foods; Phil Thirkel, StarKist Samoa; Joe Carney, StarKist Samoa;
David Wilson, CH2M HILL.

TECHNICAL MEMORANDUM



STARKIST SAMOA EFFLUENT PRIORITY POLLUTANT ANALYSIS – SEPTEMBER 2004 SAMPLING

Prepared For: StarKist Samoa

Prepared By: Karen Glatzel
Steve Costa

Date: 22 December 2004

Distribution: Carl Goldstein
United States Environmental Protection Agency, Region 9
Peter Peshut
American Samoa Environmental Protection Agency

Purpose

This memorandum presents the results of the effluent priority pollutant analysis conducted for StarKist Samoa. The effluent sampling and analysis is required under StarKist Samoa's NPDES Permit (No. AS 0000019). The analyses were conducted using a 24-hr composite effluent sample collected in September 2004.

Background

StarKist Samoa must monitor treated wastewater effluent as required in its NPDES Permit, Section D. The effluent monitoring results presented in this Technical Memorandum meet the requirements of NPDES Permit Section D.2 (Priority Pollutant Scan), which is stated as follows:

The permittee shall conduct at least one priority pollutant scan of the effluent. This test shall be conducted prior to the application for renewal of the permit. Should the toxicity tests[Section D.1] indicate that the discharge causes, has a reasonable potential to cause, or contributes to non-compliance with American Samoa Water Quality Standards, ASEPA and/or USEPA may require full or partial priority pollutant scans be conducted concurrent with the required semi-annual bioassay tests.

Sampling Location

The effluent sampling location is the same as used when StarKist Samoa is sampling effluent for other tests such as the semi-annual bioassay sampling and routine discharge monitoring. It is located just downstream of the Parschal flume, prior to discharge into the joint cannery outfall.

Effluent Sampling Methods

Between 0900 on 22 September 2004 and 0600 on 23 September 2004, a 24-hour flow-weighted composite sample of final effluent was collected from the StarKist Samoa effluent discharge. Individual grab samples were collected from the permit established effluent sampling site. Detailed sampling procedures are described in the previously established SOP for cannery effluent sampling for toxicity and chemistry testing.

A total of eight grab samples were collected at three-hour intervals over a 24-hour period. At each sampling time samples were collected into two 1-gallon brown glass bottles. The samples were stored on ice, or in a refrigerator, until completion of the 24-hour sampling period. After all samples were collected a flow-proportioned composite sample was prepared. The grab sample collection times, effluent flow rates, and the relative effluent flow volumes calculated from plant flow records are summarized in Table 1. The relative effluent flow volumes were used to prepare the final composite sample, which was used to fill the various sample containers shipped to the laboratory for testing.

The sample containers were packed on ice, in an ice chest, for shipment to the laboratory. A chain-of-custody form for the sample was completed and sealed into a zip-lock bag and taped inside the lid of the ice chest. The sample was shipped via DHL to the testing laboratory. The chain-of-custody form and the DHL waybill are provided in Attachment I.

Effluent Sampling Results

The results of the effluent sample analysis for priority pollutants are given in Tables 2 through 6. Table 7 provides the data qualifiers for this data set. Detailed laboratory analytical results are provided in Attachment II. Results are presented in terms of the data types: general inorganics and nutrients, metals, organochlorine pesticides and PCB's, volatiles, and semi-volatiles, in Tables 2 through 6, respectively.

Inorganics and Nutrients

With the exception of cyanide there were detected values reported for all constituents in the general category (Table 2). Nutrients included nitrogen (TKN), ammonia, and phosphorus, with reported concentrations that are in the typical range for the cannery effluent.

Metals

The effluent sample results for metals indicates that seven metals were detected as present, aluminum, barium, boron, cadmium, iron, manganese, mercury, and zinc (Table 3). Four other metals, antimony, arsenic, selenium, and titanium, were estimated (designated as B) between the method reporting limit (MRL) and the method detection limit (MDL).

Organochlorine Pesticides and PCB's

The effluent sample test results indicate two constituents in this category were detected, but at estimated concentrations, Endosulfan I and 4-4'DDE (Table 4). Both of these constituents were estimated to be at concentrations that were extremely low. All other constituents in this category were reported as not detected.

Volatile Organics and Semi-Volatile Organics

Volatile organics analysis of the effluent sample indicated that one constituent, toluene, was present at 29 µg/l (Table 5). Two other constituents were detected but at estimated concentrations, benzene and ethylbenzene. Benzene was estimated to be at the MDL. Ethylbenzene was estimated to be above the MDL but lower than the MRL.

Semi-volatile analysis results (Table 6) for the effluent sample resulted in one constituent being detected as present, bis(2-ethylhexyl) phthalate and five other constituents were detected but at estimated concentrations. Estimated concentrations were typically very low and closer to the MDL than the MRL.

Table 1.										
StarKist Samoa Effluent Composite Worksheet for NPDES Priority Pollutant Chemistry Samples 22 Sept 2004 to 23 Sept 2004										
Grab Sample No.	Sample Collection Time		Flow GPM	(C)	(D)	Volume of sample (ml) (note: 1 gallon = 3780 ml)				
				Flow MGD	Fraction of Total Flow					
	(A)	(B)				(E)	(F)	(G)	(H)	(I)
	Date	Time				3780	1000	500	250	100
1	9/22/2004	9:00 AM	1093	1.57392	0.0856	323	86	43	21.4	8.6
2	9/22/2004	12:00	1298	1.86912	0.1016	384	102	51	25.4	10.2
3	9/22/2004	15:00	1618	2.32992	0.1266	479	127	63	31.7	12.7
4	9/22/2004	18:00	1813	2.61072	0.1419	536	142	71	35.5	14.2
5	9/22/2004	21:00	1720	2.4768	0.1346	509	135	67	33.7	13.5
6	9/23/2004	12:00 AM	1823	2.62512	0.1427	539	143	71	35.7	14.3
7	9/23/2004	3:00	1821	2.62224	0.1425	539	143	71	35.6	14.3
8	9/23/2004	6:00	1590	2.28960	0.1245	470	124	62	31.1	12.4
Totals:				18.39744	1.0000	3780	1000	500	250	100

StarKist Samoa Effluent Priority Pollutant Analysis
September 2004 Sampling

<p style="text-align: center;">Table 2. StarKist Samoa Effluent Priority Pollutant General Constituents Analysis September 2004</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Bromide	21.1=		mg/l	100	20	6	N/A	300.0
Sulfate	933=			500	100	45		300.0
Cyanide	0.003	U		1	0.01	0.003		335.2
Chemical Oxygen Demand	1400=			2	100	100		410.1
MBAS	0.07=			1	0.05	0.03		425.1
Solids, Total Suspended	62=			1	5	5		160.2
Phenolics, Total	0.32=			1	0.01	0.003		420.1
Carbon, Total Organic	214=			50	25	3.5		415.1
Sulfite	55=			1	2	0.3		377.1
Sulfide, Total	4.87=			4	0.2	0.024		376.2
Ammonia as Nitrogen	37.6=			25	1.3	0.75		350.1
Nitrogen, Total Kjeldahl (TKN)	64.1=			25	3.0	1.75		351.4
Phosphorus, Total	11.6=			25	0.3	0.075		365.3
Oil and Grease, Total	8=			1	5.0	0.64		1664

<p style="text-align: center;">Table 3. StarKist Samoa Effluent Priority Pollutant Metals Analysis September 2004</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Aluminum	918=		mg/l	1	50	40	N/A	6010B
Antimony	44.5B			1	50	40		6010B
Arsenic	17.5B			5	25.0	5.0		7060A
Barium	5.5=			1	5.0	2.0		6010B
Beryllium	0.4	U		1	5.0	0.4		6010B
Boron	1820=			1	50	20		6010B
Cadmium	8.6=			1	5.0	5.0		6010B
Chromium	3.0	U		1	5.0	3.0		6010B
Cobalt	5.0	U		1	10.0	5.0		6010B
Copper	4.0	U		1	10.0	4.0		6010B
Iron	321=			1	20.0	20.0		6010B
Lead	2.0	U		2	4.0	2.0		7421
Manganese	22.0=			1	5.0	2.0		6010B
Mercury	0.27=			1	0.20	0.04		7470A
Molybdenum	9.0	U		1	10.0	9.0		6010B
Nickel	20	U		1	20	20		6010B
Selenium	5.6B			5	25.0	5.0		7740
Silver	5.0	U		1	10.0	5.0		6010B
Thallium	5.0	U		5	25.0	5.0		7841
Tin	50	U		1	50	50		6010B
Titanium	6.1B			1	10.0	2.0		6010B
Zinc	260=			1	10.0	2.0		6010B

<p style="text-align: center;">Table 4. StarKist Samoa Effluent Priority Pollutant Organochlorine Pesticides and Polychlorinated Biphenyls Analysis September 2004</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
alpha-BHC	0.052	U, i	µg/l	5	0.052	0.052	EPA 3520C	608M
beta-BHC	0.013	U		5	0.052	0.013		
gamma-BHC (Lindane)	0.052	U, i		5	0.052	0.052		
delta-BHC	0.0072	U		5	0.052	0.0072		
Heptachlor	0.015	U, i		5	0.052	0.015		
Aldrin	0.052	U, i		5	0.052	0.052		
Heptachlor Epoxide	0.0045	U		5	0.052	0.0045		
Endosulfan I	0.0074	J,P,D		5	0.052	0.0031		
Dieldrin	0.0035	U		5	0.052	0.0035		
4,4'-DDE	0.012	J,P,D		5	0.052	0.0041		
Endrin	0.0072	U		5	0.052	0.0072		
Endosulfan II	0.0097	U		5	0.052	0.0097		
4,4'-DDD	0.0041	U		5	0.052	0.0041		
Endrin Aldehyde	0.0062	U		5	0.052	0.0062		
Endosulfan Sulfate	0.0073	U		5	0.052	0.0073		
4,4'-DDT	0.013	U		5	0.052	0.013		
Toxaphene	0.92	U		5	5.2	0.92		
Chlordane	0.29	U		5	5.2	0.29		
Aroclor 1016	0.11	U		1	1.1	0.11		
Aroclor	0.066	U		1	1.1	0.066		
Aroclor 1232	0.044	U		1	1.1	0.044		
Aroclor 1242	0.086	U		1	1.1	0.086		
Aroclor 1248	0.018	U		1	1.1	0.018		
Aroclor 1254	0.0086	U		1	1.1	0.0086		
Aroclor 1260	0.022	U		1	1.1	0.022		

StarKist Samoa Effluent Priority Pollutant Analysis
September 2004 Sampling

<p style="text-align: center;">Table 5. StarKist Samoa Effluent Priority Pollutant Volatile Organic Analysis September 2004.</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Chloromethane	0.31	U	µg/l	1	5.0	0.31	none	624
Vinyl Chloride	0.58	U			5.0	0.58		
Bromomethane	0.81	U			5.0	0.81		
Chloroethane	0.46	U			5.0	0.46		
Trichlorofluoromethane (CFC 11)	0.49	U			5.0	0.49		
1,1-Dichloroethene (1,1-DCE)	0.48	U			5.0	0.48		
Dichloromethane (Methylene Chloride)	0.21	U			5.0	0.21		
trans-1,2-Dichloroethene	0.19	U			5.0	0.19		
1,1-Dichloroethane (1,1-DCA)	0.34	U			5.0	0.34		
Chloroform	0.21	U			5.0	0.21		
1,1,1-Trichloroethane (TCA)	0.45	U			5.0	0.45		
Carbon Tetrachloride	0.38	U			5.0	0.38		
Benzene	0.27	J			5.0	0.27		
1,2-Dichloroethane (EDC)	0.12	U			5.0	0.12		
Trichloroethene (TCE)	0.46	U			5.0	0.46		
1,2-Dichloropropane	0.19	U			5.0	0.19		
Bromodichloromethane	0.17	U			5.0	0.17		
2-Chloroethyl Vinyl Ether	0.62	U			10.0	0.62		
trans-1,3-Dichloropropene	0.17	U			5.0	0.17		
Toluene	29	=			5.0	0.25		
cis-1,3-Dichloropropene	0.17	U			5.0	0.17		
1,1,2-Trichloroethane	0.21	U			5.0	0.21		
Tetrachloroethene (PCE)	0.43	U			5.0	0.43		
Dibromochloromethane	0.15	U			5.0	0.15		
Chlorobenzene	0.18	U			5.0	0.18		
Ethylbenzene	1.6	J			5.0	0.33		
Bromoform	0.28	U			5.0	0.28		
1,1,2,2-Tetrachloroethane	0.25	U			5.0	0.25		
1,3-Dichlorobenzene	0.17	U			5.0	0.17		
1,4-Dichlorobenzene	0.17	U			5.0	0.17		
1,2-Dichlorobenzene	0.19	U			5.0	0.19		
Acrolein	4.3	U			50	4.3		
Acrylonitrile	0.45	U			10	0.45		

StarKist Samoa Effluent Priority Pollutant Analysis
September 2004 Sampling

<p style="text-align: center;">Table 6.</p> <p style="text-align: center;">StarKist Samoa Effluent Priority Pollutant</p> <p style="text-align: center;">Semi-Volatile Analysis, September 2004</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
N-Nitrosodimethylamine	1.49	U	µg/l	1	26	1.49	3520C	625
Bis(2-chloroethyl) Ether	0.34	U			11	0.34		
Phenol	300D				52	1.7		
2-Chlorophenol	0.32	U			11	0.32		
1,3-Dichlorobenzene	0.36	U			11	0.36		
1,4-Dichlorobenzene	0.33	U			11	0.33		
1,2-Dichlorobenzene	0.44	U			11	0.44		
Bis(2-chloroisopropyl) Ether	0.32	U			11	0.32		
Hexachloroethane	0.30	U			11	0.30		
N-Nitrosodi-n-propylamine	0.51	U			11	0.51		
Nitrobenzene	0.58	U			11	0.58		
Isophorone	0.26	U			11	0.26		
2-Nitrophenol	0.39	U			11	0.39		
2,4-Dimethylphenol	0.27	U			11	0.27		
Bis(2-chloroethoxy)methane	0.29	U			11	0.29		
2,4-Dichlorophenol	0.31	U			11	0.31		
1,2,4-Trichlorobenzene	0.37	U			11	0.37		
Naphthalene	3.6J				11	0.38		
Hexachlorobutadiene	0.30	U			11	0.30		
4-Chloro-3-methylphenol	0.50	U			11	0.50		
Hexachlorocyclopentadiene	1.3	U			11	1.3		
2,4,6-Trichlorophenol	0.21	U			11	0.21		
2-Chloronaphthalene	0.30	U			11	0.30		
Acenaphthylene	0.25	U			11	0.25		
Dimethyl Phthalate	0.26	U			11	0.26		
2,6-Dinitrotoluene	0.36	U			11	0.36		
Acenaphthene	0.29	U			11	0.29		
2,4-Dinitrophenol	2.3	U			26	2.3		
4-Nitrophenol	2.0	U			26	2.0		

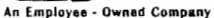
<p style="text-align: center;">Table 6 (continued).</p> <p style="text-align: center;">StarKist Samoa Effluent Priority Pollutant</p> <p style="text-align: center;">Semi-Volatile Analysis, September 2004</p>								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
2,4-Dinitrotoluene	0.28	U	µg/l	1	11	0.28	3520C	625
Fluorene	1.3	J			11	0.33		
4-Chlorophenyl Phenyl Ether	0.29	U			11	0.29		
Diethyl Phthalate	0.30	U			11	0.30		
4,6-Dinitro-2-methylphenol	2.2	U			26	2.2		
N-Nitrosodiphenylamine	0.54	U			11	0.54		
1,2-Diphenylhydrazine	0.52	U			11	0.52		
4-Bromophenyl Phenyl Ether	0.28	U			11	0.28		
Hexachlorobenzene	0.65	U			11	0.65		
Pentachlorophenol (PCP)	2.5	U			26	2.5		
Phenanthrene	1.8	J			11	0.50		
Anthracene	0.63	U			11	0.63		
Di-n-butyl Phthalate	0.58	J			11	0.38		
Fluoranthene	0.67	U			11	0.67		
Benzidine	9.0	U			52	9.0		
Pyrene	0.75	U			11	0.75		
Butyl Benzyl Phthalate	0.48	U			11	0.48		
3,3'-Dichlorobenzidine	0.28	U			26	0.28		
Benz(a)anthracene	0.61	U			11	0.61		
Chrysene	0.81	U			11	0.81		
Bis(2-ethylhexyl) Phthalate	14	=			11	2.0		
Di-n-octyl Phthalate	0.64	U			11	0.64		
Benzo(b)fluoranthene	0.60	U			11	0.60		
Benzo(k)fluoranthene	0.85	U			11	0.85		
Benzo(a)pyrene	0.67	U			11	0.67		
Indeno(1,2,3-cd)pyrene	0.70	U			11	0.70		
Dibenz(a,h)anthracene	0.77	U			11	0.77		
Benzo(g,h,i)perylene	0.83	U			11	0.83		

Table 7.
Data Qualifiers for StarKist Samoa Priority Pollutant Analysis
September 2004

Constituents	Symbol	Interpretation
All	=	Value of constituent with no qualifiers.
	U	The compound was analyzed for, but was not detected at or above the MRL/MDL (Method Reporting Limit or the Method Detection Limit)
Metals	B	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL
Organics	i	The MRL/MDL has been elevated due to a chromatographic interference
	J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL
	P	The GC or HPLC confirmation criteria was exceeded. The relative difference is greater than 40% between the two analytical results (25% for CLP pesticides)
	D	The reported result is from a dilution.

ATTACHMENT I

Chain-of-Custody



CHAIN OF CUSTODY

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

PAGE 1 OF 1 COC # SKS PA

SR#:

1(2407650

COC # SKS PP[illegible]

BCOC #1 06/03

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Shipper's name STEVE COSTA/JIM CRAWFORD	
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Zip code (required) 96804-5129	Phone/Fax/Telex circle one 684-633-5264 12061453-5000

2 To (Recipient)	
Company name COLUMBIA ANALYTICAL SERVICES	
Attention HARVEY JACKY	
Delivery address 1317 SOUTH 13TH AVE KELSO, WA USA	
Zip/Postcode (required) 98626	Phone/Fax/Telex circle one 360-577-7222

5 Shipper's authorization and signature	
<p>I/we agree that DHL's standard terms apply to this shipment and limit DHL's liability for loss or damage to U.S. \$ 100. The Warsaw Convention may also apply (see reverse). I/we authorize DHL to complete other documents necessary to export this shipment. I/we understand that insurance is available on request, for an extra charge. I/we agree to pay all charges if the recipient or third party does not pay.</p> <p>I/we understand that DHL DOES NOT TRANSPORT CASH</p> <p>SI <u>Steve Costa</u> Date <u>1/1</u></p>	

3 Shipment details	
Services <input type="checkbox"/> U.S. DOMESTIC <input type="checkbox"/> INTERNATIONAL DOCUMENT <input checked="" type="checkbox"/> INTERNATIONAL NON DOCUMENT <input type="checkbox"/> WORLDMAIL 1st / APM / 2nd circle one Special Services extra charges may apply <input type="checkbox"/> SATURDAY DELIVERY <input type="checkbox"/> POD shipper's fax/telex no. for FOB (optional) <input type="checkbox"/> OTHER specify	Payment Options not all options available to all countries <input checked="" type="checkbox"/> Shipper's account <input type="checkbox"/> Recipient <input type="checkbox"/> Third party Acct. No. _____ <input type="checkbox"/> Cash / Check / Credit Card circle one No. _____ Expires _____ Type _____ Shipment Insurance if desired, enter amount below U.S. \$ _____ Insured value _____
Full description of contents WATER QUALITY SAMPLES FOR LABORATORY ANALYSIS NO COMMERCIAL VALUE	
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Shipper's EIN/SSN	This shipment is licensed by the U.S. for the ultimate destination named above. Diversion contrary to U.S. Law is prohibited.
Destination duties/taxes If left blank recipient pays duties/taxes <input type="checkbox"/> Recipient <input checked="" type="checkbox"/> Shipper <input type="checkbox"/> Other Specify destination approved account number	

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ATTACHMENT II

**Effluent Laboratory Results
Columbia Analytical Services**

SKS

1317 South 13th Avenue P.O. Box 479 Kelso, Washington 98626 (360) 577-7222 ph (360) 636-1068 fax



November 10, 2004

Service Request No: K2407650

Steve Costa
CH2M HILL
PO BOX 1238
Trinidad, CA 95570-1238

RE: Joint Cannery Outfall -Streams / 147323.JC.04.TW

Dear Steve:

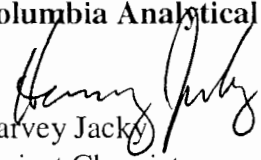
Enclosed are the results of the sample(s) submitted to our laboratory on September 30, 2004. For your reference, these analyses have been assigned our service request number K2407650.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3260.

Respectfully submitted,

Columbia Analytical Services, Inc.


Harvey Jacky
Project Chemist

HJ/jeb

Page 1 of

1732

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- B The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.
- * The duplicate analysis not within control limits. See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a chromatographic interference.
- X See case narrative.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	CH2M Hill	Service Request No.:	K2407650
Project:	Joint Cannery Outfall - Streams / 147323.JC.04.TW	Date Received:	9/30/04
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two water samples were received for analysis at Columbia Analytical Services on 9/30/04. The following discrepancies were noted upon initial sample inspection. The temperatures of the shipping coolers were above the upper recommended limit of 6 °C. The exceptions are also noted on the cooler receipt and preservation form included in this data package. Except as noted, the samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Bromide by EPA Method 300.0:

The reporting limit is elevated for Bromide in sample COS-PP04 because the sample required dilution. The chromatogram indicated the presence of non-target background components (i.e. Chloride) that prevented adequate resolution of the target analyte at the reporting limit. The result is flagged to indicate the matrix interference.

Total Phosphorus by EPA Method 365.3:

The matrix spike recovery of Phosphorus for sample SKS-PP04 was outside control criteria because of suspected matrix interference. A Matrix Spike Duplicate (MSD) was also analyzed, but produced similar results. The results of the original analysis are reported. No further corrective action was appropriate.

Total Phenolics by EPA Method 420.1:

The matrix spike recovery of Phenolics for sample Batch QC was outside control criteria because of suspected matrix interference. A Matrix Spike Duplicate (MSD) was also analyzed, but produced similar results. The results of the original analysis are reported. No further corrective action was appropriate.

Total Metals

No anomalies associated with the analysis of these samples were observed.

Oil and Grease by EPA Method 1664

Matrix Spike Recovery Exceptions:

The matrix spike recovery of Oil and Grease, Total (HEM) for sample Batch QC is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

Approved by _____

Date 11/16/04

Organochlorine Pesticides and PCBs by EPA Method 608

Holding Time Exceptions:

Samples SKS-PP04 and CO5-PP04 were received with insufficient hold time remaining to complete the analysis within the recommended limit. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time violation.

Continuing Calibration Verification (CCV) Exceptions:

The analysis of Chlorinated Pesticides and PCB Aroclors by EPA 608 requires the use of dual column confirmation. When the CCV criteria are met for both columns, the higher of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for CCV 1025F018, 1025F041, and 1025F043 Endosulfan Sulfate, Decachlorobiphenyl, Endosulfan II, Endrin Aldehyde, Heptachlor, and/or Chlordane. The results are reported from the column with an acceptable CCV. The data quality is not affected. No further corrective action was appropriate.

Sample Confirmation Notes:

Flag JP: The confirmation comparison criteria are not applicable because at least one of the values is below the Method Reporting Limit (MRL).

Elevated Method Reporting Limits:

The reporting limit is elevated for all analytes in all samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components. Clean-up of the extract was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilution. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The results are flagged to indicate the matrix interference.

The reporting limit is further elevated for few analytes in all samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the reporting limit. The results are flagged to indicate the matrix interference.

The MDL is elevated for 4,4'-DDE in sample Method Blank KWG0415263-3. The chromatogram indicated the presence of non-target background components, which were apparently introduced as laboratory artifacts. The contamination prevented adequate resolution of the target compounds at the MDL. Note the level of background was relatively low compared to the MDL, so the affect on the results was minimal. The results are flagged to indicate the anomaly.

Volatile Organic Compounds by EPA Method 624

Surrogate Exceptions:

The control criteria were exceeded for the following surrogate in sample COS-PP04 and Batch QC due to matrix interferences: 4-Bromofluorobenzene. A reanalysis was performed, but produced similar results. The results of the original analysis are reported. No further corrective action was required.

Matrix Spike Recovery Exceptions:

The matrix spike recovery(ies) of 1,1-Dichloroethene and Benzene for sample Batch QCMS and Batch QCDMS were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action was appropriate.

The matrix spike recovery(ies) of Toluene, Chlorobenzene, and 1,2-Dichlorobenzene for sample Batch QCDMS were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action was appropriate.

Approved by _____

Date 11/16/04

Laboratory Control Sample (LCS) Exceptions:

The advisory criterion was exceeded for the following analyte in Laboratory Control Sample (LCS) KWG0416904-1: Acrylonitrile. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analyte used to control the analysis. The recovery information reported for this analyte is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Relative Percent Difference (RPD) Exceptions:

The RPD for the following analytes in the replicate LCS analyses (kwg0416904-1 and kwg0416904-2) was outside control criteria: 2-Chloroethyl Vinyl Ether. Analysis of samples associated with this LCS/DLCS resulted in no hits for this compound. The data is flagged to indicate the anomaly.

Semivolatile Organic Compounds by EPA Method 625**Holding Time Exceptions:**

Samples SKS-PP04 and COS-PP04 were received past the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time anomaly.

Second Source Exceptions:

The upper control criterion was exceeded for Benzidine in Initial Calibration Verification (ICV) MS07/1006G002.D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

The upper control criterion was exceeded for Benzidine in Initial Calibration Verification (ICV) MS07/1012F016.D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Continuing Calibration Verification (CCV) Exceptions:

The upper control criterion was exceeded for Benzidine in CCV MS07/1013F002.D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was appropriate.

Approved by _____

Date

11/16/04

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Bromide

Analysis Method 300.0
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	20	6	100	10/05/04	21.1	
Method Blank	K2407650-MB	0.2	0.06	1	10/05/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/05/04

Duplicate Summary Inorganic Parameters

Sample Name : Batch QC
Lab Code : K2407737-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Bromide	300.0	0.2	ND	ND	ND	-	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/05/04

Matrix Spike Summary Inorganic Parameters

Sample Name : Batch QC
 Lab Code : K2407737-001MS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Bromide	300.0	0.2	4.0	ND	4.3	108	90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/05/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Bromide	None	300.0	4.0	4.3	108	90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Bromide
EPA Method 300.0
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/05/04	2.0	1.8	90
CCV2 Result	10/05/04	2.0	1.8	90
CCV3 Result	10/05/04	2.0	1.9	95
CCV4 Result	10/05/04	2.0	1.9	95
CCV5 Result	10/05/04	2.0	1.8	90
CCV6 Result	10/05/04	2.0	1.8	90
CCV7 Result	10/05/04	2.0	1.8	90
CCV8 Result	10/05/04	2.0	1.9	95

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/05/04	0.2	ND
CCB2 Result	10/05/04	0.2	ND
CCB3 Result	10/05/04	0.2	ND
CCB4 Result	10/05/04	0.2	ND
CCB5 Result	10/05/04	0.2	ND
CCB6 Result	10/05/04	0.2	ND
CCB7 Result	10/05/04	0.2	ND
CCB8 Result	10/05/04	0.2	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Sulfate

Analysis Method 300.0
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	100	45	500	10/05/04	933	
Method Blank	K2407650-MB	0.2	0.09	1	10/05/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/05/04

Duplicate Summary Inorganic Parameters

Sample Name : Batch QC
Lab Code : K2407737-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Sulfate	300.0	0.2	0.6	0.7	0.7	14	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/05/04

Matrix Spike Summary Inorganic Parameters

Sample Name : Batch QC
 Lab Code : K2407737-001MS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Sulfate	300.0	0.2	4.0	0.6	4.3	93	80-120	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/05/04

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfate	None	300.0	5.0	4.7	94	90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Sulfate
EPA Method 300.0
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/05/04	5.0	4.7	94
CCV2 Result	10/05/04	5.0	4.8	96
CCV3 Result	10/05/04	5.0	4.8	96
CCV4 Result	10/05/04	5.0	4.7	94
CCV5 Result	10/05/04	5.0	4.7	94
CCV6 Result	10/05/04	5.0	4.8	96
CCV7 Result	10/05/04	5.0	4.8	96
CCV8 Result	10/05/04	5.0	4.8	96

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/05/04	0.2	ND
CCB2 Result	10/05/04	0.2	ND
CCB3 Result	10/05/04	0.2	ND
CCB4 Result	10/05/04	0.2	ND
CCB5 Result	10/05/04	0.2	ND
CCB6 Result	10/05/04	0.2	ND
CCB7 Result	10/05/04	0.2	ND
CCB8 Result	10/05/04	0.2	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Cyanide, Total

Analysis Method 335.2
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.01	0.003	1	10/05/04	ND	
Method Blank	K2407650-MB	0.01	0.003	1	10/05/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/05/04

Duplicate Summary Inorganic Parameters

Sample Name : Batch QC
 Lab Code : K2407645-001DUP
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Cyanide, Total	335.2	0.01	ND	ND	ND	-	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/05/04

Matrix Spike Summary Inorganic Parameters

Sample Name : Batch QC
 Lab Code : K2407645-001MS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Cyanide, Total	335.2	0.01	0.10	ND	0.10	100	75-125	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/05/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Cyanide, Total	None	335.2	0.52	0.49	94	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Cyanide, Total
EPA Method 335.2
Units: ug/L (ppb)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/07/04	100	105	105
CCV1 Result	10/07/04	100	98	98
CCV2 Result	10/07/04	100	105	105
CCV2 Result	10/07/04	100	99	99
CCV3 Result	10/07/04	100	103	103
CCV3 Result	10/07/04	100	98	98
CCV4 Result	10/07/04	100	101	101
CCV4 Result	10/07/04	100	92	92
CCV5 Result	10/07/04	100	98	98

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/07/04	10	ND
CCB1 Result	10/07/04	10	ND
CCB2 Result	10/07/04	10	ND
CCB2 Result	10/07/04	10	ND
CCB3 Result	10/07/04	10	ND
CCB3 Result	10/07/04	10	ND
CCB4 Result	10/07/04	10	ND
CCB4 Result	10/07/04	10	ND
CCB5 Result	10/07/04	10	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Chemical Oxygen Demand

Analysis Method 410.1
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	100	100	2	10/11/04	1400	
Method Blank	K2407650-MB	50	50	1	10/11/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/11/04

Duplicate Summary
Inorganic Parameters

Sample Name : COS-PP04
Lab Code : K2407650-002DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Chemical Oxygen Demand	410.1	100	1020	1090	1060	7	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/11/04

Matrix Spike Summary Inorganic Parameters

Sample Name : COS-PP04
Lab Code : K2407650-002MS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Chemical Oxygen Demand	410.1	130	1000	1020	2050	103	75-125	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/11/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample
 Lab Code : K2407650-LCS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery	Result Notes
						Acceptance Limits	
Chemical Oxygen Demand	None	410.1	342	327	96	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Ammonia as Nitrogen

Analysis Method 350.1
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	1.3	0.75	25	10/01/04	37.6	
Method Blank	K2407650-MB	0.05	0.03	1	10/01/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/01/04

Duplicate Summary Inorganic Parameters

Sample Name : Batch QC
 Lab Code : K2407645-002DUP
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Ammonia as Nitrogen	350.1	1.3	32.0	33.5	32.8	5	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/01/04

Matrix Spike Summary Inorganic Parameters

Sample Name : Batch QC
Lab Code : K2407645-002MS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Ammonia as Nitrogen	350.1	1.3	50.0	32.0	84.9	106	90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/01/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Ammonia as Nitrogen	None	350.1	4.84	4.64	96	90-110	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Ammonia as Nitrogen
EPA Method 350.1
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/01/04	2.00	1.93	97
CCV2 Result	10/01/04	2.00	1.96	98
CCV3 Result	10/01/04	2.00	1.93	97
CCV4 Result	10/01/04	2.00	1.96	98
CCV5 Result	10/01/04	2.00	1.97	99
CCV6 Result	10/01/04	2.00	1.94	97
CCV7 Result	10/01/04	2.00	1.95	98
CCV9 Result	10/01/04	2.00	2.01	101
CCV10 Result	10/01/04	2.00	2.03	102
CCV11 Result	10/01/04	2.00	1.98	99
CCV12 Result	10/01/04	2.00	1.99	100

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/01/04	0.05	ND
CCB2 Result	10/01/04	0.05	ND
CCB3 Result	10/01/04	0.05	ND
CCB4 Result	10/01/04	0.05	ND
CCB5 Result	10/01/04	0.05	ND
CCB6 Result	10/01/04	0.05	ND
CCB7 Result	10/01/04	0.05	ND
CCB9 Result	10/01/04	0.05	ND
CCB10 Result	10/01/04	0.05	ND
CCB11 Result	10/01/04	0.05	ND
CCB12 Result	10/01/04	0.05	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Methylene Blue Active Substances (MBAS)

Analysis Method 425.1
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.05	0.03	1	10/06/04	0.07	X
Method Blank	K2407650-MB	0.05	0.03	1	10/02/04	ND	
Method Blank	K2407650-MB	0.05	0.03	1	10/06/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/02/04

Duplicate Summary Inorganic Parameters

Sample Name : Batch QC
Lab Code : K2407645-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Methylene Blue Active Substances (MBAS)	425.1	0.5	0.7	0.7	0.7	<1	X

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : 09/23/04
 Date Received : 09/30/04
 Date Extracted : NA
 Date Analyzed : 10/06/04

Duplicate Summary Inorganic Parameters

Sample Name : SKS-PP04
 Lab Code : K2407650-001DUP
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Methylene Blue Active Substances (MBAS)	425.1	0.05	0.07	0.07	0.07	<1	X

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/02/04

Matrix Spike Summary Inorganic Parameters

Sample Name : Batch QC
Lab Code : K2407645-001MS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Methylene Blue Active Substances (MBAS)	425.1	0.5	3.0	0.7	2.9	73	60-130	X

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/06/04

Matrix Spike Summary Inorganic Parameters

Sample Name : SKS-PP04
Lab Code : K2407650-001MS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Methylene Blue Active Substances (MBAS)	425.1	0.05	0.30	0.07	0.31	80	60-130	X

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Methylene Blue Active Substances (MBAS)
EPA Method 425.1
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/02/04	0.30	0.26	87
CCV2 Result	10/02/04	0.30	0.27	90
CCV3 Result	10/02/04	0.30	0.27	90
CCV1 Result	10/06/04	0.30	0.27	90
CCV2 Result	10/06/04	0.30	0.28	93

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/02/04	0.05	ND
CCB2 Result	10/02/04	0.05	ND
CCB3 Result	10/02/04	0.05	ND
CCB1 Result	10/06/04	0.05	ND
CCB2 Result	10/06/04	0.05	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : Water

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Solids, Total Suspended (TSS)

Analysis Method 160.2
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	5	5	1	09/30/04	62	
Method Blank	K2407650-MB	5	5	1	09/30/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : Water

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 09/30/04

Duplicate Summary Inorganic Parameters

Sample Name : SKS-PP04
Lab Code : K2407650-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Solids, Total Suspended (TSS)	160.2	5	62	72	67	15	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 09/30/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Lab Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Solids, Total Suspended (TSS)	None	160.2	311	300	96	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Phosphorus, Total

Analysis Method 365.3
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.3	0.075	25	10/05/04	11.6	
Method Blank	K2407650-MB	0.01	0.003	1	10/05/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/05/04

Duplicate Summary Inorganic Parameters

Sample Name : SKS-PP04
Lab Code : K2407650-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Phosphorus, Total	365.3	0.3	11.6	10.8	11.2	7	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/05/04

**Matrix Spike Summary
Inorganic Parameters**

Sample Name : SKS-PP04
Lab Code : K2407650-001MS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Phosphorus, Total	365.3	0.3	0.50	11.6	11.9	60	76-118	*

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/05/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Lab Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Phosphorus, Total	None	365.3	3.29	3.20	97	94-108	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill

Project : Joint Cannery Outfall -Streams

Service Request : K2407650

Date Collected : NA

Date Received : NA

Phosphorus, Total

EPA Method 365.3

Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/05/04	0.50	0.49	98
CCV2 Result	10/05/04	0.50	0.50	100
CCV3 Result	10/05/04	0.50	0.50	100
CCV4 Result	10/05/04	0.50	0.50	100

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/05/04	0.01	ND
CCB2 Result	10/05/04	0.01	ND
CCB3 Result	10/05/04	0.01	ND
CCB4 Result	10/05/04	0.01	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Phenolics, Total

Analysis Method 420.1
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.01	0.003	1	10/06/04	0.32	
Method Blank	K2407650-MB	0.01	0.003	1	10/06/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/06/04

Duplicate Summary Inorganic Parameters

Sample Name : BatchQC
Lab Code : K2407645-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Phenolics, Total	420.1	0.01	0.05	0.05	0.05	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/06/04

Matrix Spike Summary Inorganic Parameters

Sample Name : BatchQC
 Lab Code : K2407645-001MS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Phenolics, Total	420.1	0.01	0.40	0.05	0.41	90	75-125	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/06/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Lab Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Phenolics, Total	None	420.1	0.50	0.50	100	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Phenolics, Total
EPA Method 420.1
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/06/04	0.50	0.50	100
CCV2 Result	10/06/04	0.50	0.50	100
CCV3 Result	10/06/04	0.50	0.50	100

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/06/04	0.01	ND
CCB2 Result	10/06/04	0.01	ND
CCB3 Result	10/06/04	0.01	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Carbon, Total Organic

Analysis Method 415.1
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	25	3.5	50	10/07/04	214	
Method Blank	K2407650-MB	0.5	0.07	1	10/07/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/07/04

Duplicate Summary Inorganic Parameters

Sample Name : SKS-PP04
Lab Code : K2407650-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Carbon, Total Organic	415.1	25	214	219	217	2	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/07/04

Matrix Spike Summary Inorganic Parameters

Sample Name : SKS-PP04
Lab Code : K2407650-001MS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Carbon, Total Organic	415.1	25	1250	214	1370	92	76-121	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : NA
Date Received : NA
Date Extracted : NA
Date Analyzed : 10/07/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample
Lab Code : K2407650-LCS
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Carbon, Total Organic	None	415.1	30.1	29.1	97	92-106	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Carbon, Total Organic
EPA Method 415.1
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/07/04	25.0	25.3	101
CCV2 Result	10/07/04	25.0	25.8	103
CCV3 Result	10/07/04	25.0	26.0	104
CCV4 Result	10/07/04	25.0	25.6	102
CCV5 Result	10/07/04	25.0	25.3	101
CCV6 Result	10/07/04	25.0	24.8	99
CCV7 Result	10/07/04	25.0	24.9	100
CCV8 Result	10/07/04	25.0	25.7	103

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/07/04	0.5	ND
CCB2 Result	10/07/04	0.5	ND
CCB3 Result	10/07/04	0.5	ND
CCB4 Result	10/07/04	0.5	ND
CCB5 Result	10/07/04	0.5	ND
CCB6 Result	10/07/04	0.5	ND
CCB7 Result	10/07/04	0.5	ND
CCB8 Result	10/07/04	0.5	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Sulfite

Analysis Method 377.1
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	2	0.3	1	10/01/04	55	
Method Blank	K2407650-MB	2	0.3	1	10/01/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/01/04

Duplicate Summary Inorganic Parameters

Sample Name : BatchQC
 Lab Code : K2407645-001DUP
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Sulfite	377.1	2	13	13	13	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Sulfide, Total

Analysis Method 376.2
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.2	0.024	4	09/30/04	4.87	
Method Blank	K2407650-MB	0.05	0.006	1	09/30/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : 09/23/04
 Date Received : 09/30/04
 Date Extracted : NA
 Date Analyzed : 09/30/04

Duplicate Summary Inorganic Parameters

Sample Name : COS-PP04
 Lab Code : K2407650-002DUP
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Sulfide, Total	376.2	0.05	0.97	0.96	0.97	1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : 09/23/04
 Date Received : 09/30/04
 Date Extracted : NA
 Date Analyzed : 09/30/04

Matrix Spike Summary Inorganic Parameters

Sample Name : COS-PP04
 Lab Code : K2407650-002MS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Sulfide, Total	376.2	0.05	1.76	0.97	4.06	176	75-125	*

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 09/30/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Lab Control Sample
 Lab Code : K2407650-LCS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Sulfide, Total	None	376.2	1.76	1.74	99	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Sulfide, Total
EPA Method 376.2
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	09/30/04	1.76	1.74	99
CCV2 Result	09/30/04	1.76	1.72	98

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	09/30/04	0.05	ND
CCB2 Result	09/30/04	0.05	ND

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04

Nitrogen, Total Kjeldahl (TKN)

Analysis Method 351.4
Test Notes :

Units : mg/L (ppm)
Basis : NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	3.0	1.75	25	10/05/04	64.1	
Method Blank	K2407650-MB	0.1	0.07	1	10/05/04	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project Name : Joint Cannery Outfall -Streams
Project Number : 147323.JC.04.TW
Sample Matrix : WATER

Service Request : K2407650
Date Collected : 09/23/04
Date Received : 09/30/04
Date Extracted : NA
Date Analyzed : 10/05/04

Duplicate Summary
Inorganic Parameters

Sample Name : SKS-PP04
Lab Code : K2407650-001DUP
Test Notes :

Units : mg/L (ppm)
Basis : NA

Analyte	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Nitrogen, Total Kjeldahl (TKN)	351.4	3.0	64.1	64.1	64.1	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : 09/23/04
 Date Received : 09/30/04
 Date Extracted : NA
 Date Analyzed : 10/05/04

Matrix Spike Summary Inorganic Parameters

Sample Name : SKS-PP04
 Lab Code : K2407650-001MS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS	Result Notes
							Percent Recovery Acceptance Limits	
Nitrogen, Total Kjeldahl (TKN)	351.4	3.0	20.0	64.1	88.6	123	75-125	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
 Project Name : Joint Cannery Outfall -Streams
 Project Number : 147323.JC.04.TW
 Sample Matrix : WATER

Service Request : K2407650
 Date Collected : NA
 Date Received : NA
 Date Extracted : NA
 Date Analyzed : 10/05/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample
 Lab Code : K2407650-LCS
 Test Notes :

Units : mg/L (ppm)
 Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery	Result Notes
						Acceptance Limits	
Nitrogen, Total Kjeldahl (TKN)	None	351.4	8.5	8.1	95	85-115	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : CH2M Hill
Project : Joint Cannery Outfall -Streams

Service Request : K2407650
Date Collected : NA
Date Received : NA

Nitrogen, Total Kjeldahl (TKN)
EPA Method 351.4
Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	10/05/04	10.0	9.5	95
CCV2 Result	10/05/04	10.0	9.8	98
CCV3 Result	10/05/04	10.0	10.6	106
CCV4 Result	10/05/04	10.0	9.7	97

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/05/04	0.1	ND
CCB2 Result	10/05/04	0.1	ND
CCB3 Result	10/05/04	0.1	ND
CCB4 Result	10/05/04	0.1	ND

Metals

METALS

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INORGANIC ANALYSIS DATA SHEET

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Date Collected: 09/23/04

Project Name: Joint Cannery Outfall- Streams

Date Received: 09/30/04

Matrix: WATER

Units: µG/L

Basis: NA

Sample Name: SKS-PP04

Lab Code: K2407650-001

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010B	50	40	1	10/22/04	10/25/04	918		
Antimony	6010B	50	40	1	10/22/04	10/25/04	44.5	B	
Arsenic	7060A	25.0	5.0	5	10/21/04	10/26/04	17.5	B	
Barium	6010B	5.0	2.0	1	10/22/04	10/25/04	5.5		
Beryllium	6010B	5.0	0.4	1	10/22/04	10/25/04	0.4	U	
Boron	6010B	50	20	1	10/22/04	10/25/04	1820		
Cadmium	6010B	5.0	5.0	1	10/22/04	10/25/04	8.6		
Chromium	6010B	5.0	3.0	1	10/22/04	10/25/04	3.0	U	
Cobalt	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Copper	6010B	10.0	4.0	1	10/22/04	10/25/04	4.0	U	
Iron	6010B	20.0	20.0	1	10/22/04	10/25/04	321		
Lead	7421	4.0	2.0	2	10/21/04	10/26/04	2.0	U	
Manganese	6010B	5.0	2.0	1	10/22/04	10/25/04	22.0		
Mercury	7470A	0.20	0.04	1	10/15/04	10/18/04	0.27		
Molybdenum	6010B	10.0	9.0	1	10/22/04	10/25/04	9.0	U	
Nickel	6010B	20	20	1	10/22/04	10/25/04	20	U	
Selenium	7740	25.0	5.0	5	10/21/04	10/26/04	5.6	B	
Silver	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Thallium	7841	25.0	5.0	5	10/21/04	10/22/04	5.0	U	
Tin	6010B	50	50	1	10/22/04	10/25/04	50	U	
Titanium	6010B	10.0	2.0	1	10/22/04	10/25/04	6.1	B	
Zinc	6010B	10.0	2.0	1	10/22/04	10/25/04	260		

% Solids: 0.0

Comments:

METALS

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INORGANIC ANALYSIS DATA SHEET

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Date Collected:

Project Name: Joint Cannery Outfall- Streams

Date Received:

Matrix: WATER

Units: µG/L

Basis: NA

Sample Name: Method Blank

Lab Code: K2407650-MB

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010B	50	40	1	10/22/04	10/25/04	40	U	
Antimony	6010B	50	40	1	10/22/04	10/25/04	40	U	
Arsenic	7060A	5.0	1.0	1	10/21/04	10/26/04	1.0	U	
Barium	6010B	5.0	2.0	1	10/22/04	10/25/04	2.0	U	
Beryllium	6010B	5.0	0.4	1	10/22/04	10/25/04	0.4	U	
Boron	6010B	50	20	1	10/22/04	10/25/04	20	U	
Cadmium	6010B	5.0	5.0	1	10/22/04	10/25/04	5.0	U	
Chromium	6010B	5.0	3.0	1	10/22/04	10/25/04	3.0	U	
Cobalt	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Copper	6010B	10.0	4.0	1	10/22/04	10/25/04	4.0	U	
Iron	6010B	20.0	20.0	1	10/22/04	10/25/04	20.0	U	
Lead	7421	2.0	1.0	1	10/21/04	10/26/04	1.0	U	
Manganese	6010B	5.0	2.0	1	10/22/04	10/25/04	2.0	U	
Mercury	7470A	0.20	0.04	1	10/15/04	10/18/04	0.05	B	
Molybdenum	6010B	10.0	9.0	1	10/22/04	10/25/04	9.0	U	
Nickel	6010B	20	20	1	10/22/04	10/25/04	20	U	
Selenium	7740	5.0	1.0	1	10/21/04	10/26/04	1.0	U	
Silver	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Thallium	7841	5.0	1.0	1	10/21/04	10/22/04	1.0	U	
Tin	6010B	50	50	1	10/22/04	10/25/04	50	U	
Titanium	6010B	10.0	2.0	1	10/22/04	10/25/04	2.0	U	
Zinc	6010B	10.0	2.0	1	10/22/04	10/25/04	2.0	U	

% Solids: 0.0

Comments:

METALS
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BLANKS

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Project Name: Joint Cannery Outfall- Stream

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		Method
		C	1	C	2	C	3	C	C		
Aluminum	40	U	40	U	40	U	40	U			6010B
Antimony	40	U	40	U	40	U	40	U			6010B
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U			7060A
Barium	2.0	U	2.0	U	2.0	U	2.0	U			6010B
Beryllium	0.4	U	0.4	U	0.4	U	0.4	U			6010B
Boron	27	B	20	U	20	U	20	U			6010B
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U			6010B
Chromium	3.0	U	3.0	U	3.0	U	3.0	U			6010B
Cobalt	5.0	U	5.0	U	5.0	U	5.0	U			6010B
Copper	4.0	U	4.0	U	4.0	U	4.0	U			6010B
Iron	20.0	U	20.0	U	20.0	U	20.0	U			6010B
Lead	1.0	B	1.0	U	1.0	U	1.0	U			7421
Manganese	2.0	U	2.0	U	2.0	U	2.0	U			6010B
Mercury	0.04	U	0.04	U	0.04	U	0.04	U			7470A
Molybdenum	9.0	U	9.0	U	9.0	U	9.0	U			6010B
Nickel	20	U	20	U	20	U	20	U			6010B
Selenium	1.0	U	1.0	U	1.0	U	1.0	U			7740
Silver	5.0	U	5.0	U	5.0	U	5.0	U			6010B
Thallium	1.7	B	1.0	U	1.0	U	1.0	U			7841
Tin	50	U	50	U	50	U	50	U			6010B
Titanium	2.0	U	2.0	U	2.0	U	2.0	U			6010B
Zinc	2.0	U	2.0	U	2.0	U	2.0	U			6010B

METALS

-3-

BLANKS

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Project Name: Joint Cannery Outfall- Strea

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank C	Method
			1	C	2	C	3	C		
Arsenic			1.0	U						7060A
Lead			1.0	U						7421
Mercury			0.04	U						7470A
Selenium			1.0	U						7740
Thallium			1.0	U						7841

METALS
- 5a -
SPIKE SAMPLE RECOVERY

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: SKS-PP049

Lab Code: K2407650-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum	74 - 133	2730		918		2000	91		6010B
Antimony	70 - 136	544		44.5	B	500	100		6010B
Arsenic	57 - 124	49.1		17.5	B	40.0	79		7060A
Barium	80 - 127	1800		5.5		2000	90		6010B
Beryllium	83 - 123	42.3		0.4	U	50.0	84		6010B
Boron	67 - 144	2710		1820		1000	89		6010B
Cadmium	69 - 135	57.2		8.6		50.0	97		6010B
Chromium	85 - 121	174		3.0	U	200	87		6010B
Cobalt	79 - 125	432		5.0	U	500	86		6010B
Copper	74 - 130	224		4.0	U	250	90		6010B
Iron	74 - 131	1180		321		1000	86		6010B
Lead	63 - 125	34.0		2.0	U	40.0	85		7421
Manganese	83 - 123	450		22.0		500	86		6010B
Molybdenum	73 - 127	864		9.0	U	1000	86		6010B
Nickel	82 - 124	423		20.0	U	500	84		6010B
Selenium	40 - 119	30.0		5.6	B	40.0	61		7740
Silver	31 - 156	45.7		5.0	U	50.0	91		6010B
Thallium	51 - 126	21.6	B	5.0	U	40.0	54		7841
Tin	75 - 125	9080		50.0	U	10000	91		6010B
Titanium	75 - 125	8990		6.1	B	10000	90		6010B
Zinc	86 - 121	706		260		500	89		6010B

An empty field in the Control Limit column indicates the control limit is not applicable.

METALS
- 5a -
SPIKE SAMPLE RECOVERY

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QCS

Lab Code: K2407645-001S

Analyte	Control Limit %R	Spike Result C	Sample Result C	Spike Added	%R	Q	Method
Mercury	79 - 115	1.03	0.24	1.00	79		7470A

An empty field in the Control Limit column indicates the control limit is not applicable.

METALS
- 6 -
DUPLICATES

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: SKS-PP04D

Lab Code: K2407650-001D

Analyte	Control Limit (%)	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	20	918		908		1		6010B
Antimony		44.5	B	41.4	B	7		6010B
Arsenic		17.5	B	17.9	B	2		7060A
Barium		5.5		5.5		0		6010B
Beryllium		0.4	U	0.4	U			6010B
Boron	20	1820		1850		2		6010B
Cadmium		8.6		5.0	U	200.0		6010B
Chromium		3.0	U	3.0	U			6010B
Cobalt		5.0	U	5.0	U			6010B
Copper		4.0	U	4.0	U			6010B
Iron	20	321		322		0		6010B
Lead		2.0	U	2.6	B	200.0		7421
Manganese		22.0		22.0		0		6010B
Molybdenum		9.0	U	9.0	U			6010B
Nickel		20	U	20	U			6010B
Selenium		5.6	B	5.0	U	200.0		7740
Silver		5.0	U	5.0	U			6010B
Thallium		5.0	U	5.0	U			7841
Tin		50	U	50	U			6010B
Titanium		6.1	B	4.7	B	27		6010B
Zinc	20	260		260		0		6010B

An empty field in the Control Limit column indicates the control limit is not applicable.

METALS
- 6 -
DUPLICATES

Client: CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QCD

Lab Code: K2407645-001D

Analyte	Control Limit (%)	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury		0.24		0.16	B	37		7470A

An empty field in the Control Limit column indicates the control limit is not applicable.

Oil & Grease
EPA Method 1664

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	CH2M Hill	Service Request:	K2407650
Project:	Joint Cannery Outfall -Streams/147323.JC.04.TW	Date Collected:	9/23/2004
Sample Matrix:	Water	Date Received:	9/30/2004

Oil and Grease

Sample Name:	SKS-PP04	Units:	mg/L (ppm)
Lab Code:	K2407650-001	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Oil and Grease, Total (HEM)	METHOD	1664	5.0	0.64	1	10/7/2004	10/8/2004	8.0	

Approved By: *MR* *Heckler* **Date:** 10/13/04

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:
Project:
Sample Matrix:

CH2M Hill
Joint Cannery Outfall -Streams/147323.JC.04.TW
Water

Service Request: K2407650
Date Collected: NA
Date Received: NA

Oil and Grease

Sample Name:
Lab Code:
Test Notes:

Method Blank
K041007-WB

Units: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Oil and Grease, Total (HEM)	METHOD	1664	5.0	0.64	1	10/7/2004	10/8/2004	ND	

Approved By:

Date:

1S22/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650
Date Collected: NA
Date Received: NA
Date Extracted: 10/7/2004
Date Analyzed: 10/8/2004

**Matrix Spike Summary
Oil and Grease**

Sample Name: Batch QC
Lab Code: K2407776-001MS
Test Notes:

Units: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Oil and Grease, Total (HEM)	METHOD	1664	5.0	40	188	202	35*	78-114	

Approved By:

Date: 10/13/04

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:
Project:
LCS Matrix:

CH2M Hill
Joint Cannery Outfall -Streams/147323.JC.04.TW
Water

Service Request: K2407650
Date Collected: NA
Date Received: NA
Date Extracted: 10/7/2004
Date Analyzed: 10/8/2004

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary Oil and Grease

Sample Name:
Lab Code:
Test Notes:

Lab Control Sample
K041007-WL1, K041007-WL2

Units: mg/L (ppm)
Basis: NA

Percent Recovery

Analyte	Prep Method	Analysis Method	True Value		Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
			LCS	DLCS	LCS	DLCS	LCS	DLCS			
Oil and Grease, Total (HEM)	METHOD	1664	40	40	36.9	36.2	92	90	78-114	2	

Approved By: Date: 10/13/04

**Organochlorine Pesticides
&
Polychlorinated Biphenyls (PCBs)
EPA Method 608**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: 09/23/2004
 Date Received: 09/30/2004

Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: SKS-PP04
 Lab Code: K2407650-001

Units: ug/L

Basis: NA

Extraction Method: EPA 3520C

Level: Low

Analysis Method: 608M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Alpha-BHC	ND	Ui	0.23	0.23	5	10/06/04	10/26/04	KWG0415263	*
beta-BHC	ND	Ui	0.052	0.052	5	10/06/04	10/26/04	KWG0415263	*
gamma-BHC (Lindane)	ND	Ui	0.052	0.025	5	10/06/04	10/26/04	KWG0415263	*
delta-BHC	ND	U	0.052	0.0073	5	10/06/04	10/26/04	KWG0415263	*
Heptachlor	ND	Ui	0.052	0.0098	5	10/06/04	10/26/04	KWG0415263	*
Aldrin	ND	Ui	0.052	0.042	5	10/06/04	10/26/04	KWG0415263	*
Heptachlor Epoxide	ND	Ui	0.052	0.0048	5	10/06/04	10/26/04	KWG0415263	*
Endosulfan I	ND	Ui	0.052	0.0062	5	10/06/04	10/26/04	KWG0415263	*
Dieldrin	ND	U	0.052	0.0036	5	10/06/04	10/26/04	KWG0415263	*
1,4'-DDE	ND	Ui	0.052	0.052	5	10/06/04	10/26/04	KWG0415263	*
Endrin	ND	Ui	0.052	0.043	5	10/06/04	10/26/04	KWG0415263	*
Endosulfan II	ND	U	0.052	0.0098	5	10/06/04	10/26/04	KWG0415263	*
1,4'-DDD	ND	Ui	0.074	0.074	5	10/06/04	10/26/04	KWG0415263	*
Endrin Aldehyde	ND	U	0.052	0.0062	5	10/06/04	10/26/04	KWG0415263	*
Endosulfan Sulfate	ND	U	0.052	0.0073	5	10/06/04	10/26/04	KWG0415263	*
1,4'-DDT	ND	U	0.052	0.013	5	10/06/04	10/26/04	KWG0415263	*
Toxaphene	ND	Ui	5.2	1.2	5	10/06/04	10/26/04	KWG0415263	*
Chlordane	ND	Ui	5.2	0.76	5	10/06/04	10/26/04	KWG0415263	*
Aroclor 1016	ND	U	1.1	0.11	1	10/06/04	10/23/04	KWG0415263	*
Aroclor 1221	ND	U	1.1	0.066	1	10/06/04	10/23/04	KWG0415263	*
Aroclor 1232	ND	U	1.1	0.045	1	10/06/04	10/23/04	KWG0415263	*
Aroclor 1242	ND	U	1.1	0.087	1	10/06/04	10/23/04	KWG0415263	*
Aroclor 1248	ND	U	1.1	0.018	1	10/06/04	10/23/04	KWG0415263	*
Aroclor 1254	ND	U	1.1	0.0087	1	10/06/04	10/23/04	KWG0415263	*
Aroclor 1260	ND	U	1.1	0.022	1	10/06/04	10/23/04	KWG0415263	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
tetrachloro-m-xylene	55	15-116	10/26/04	Acceptable
hexachlorobiphenyl	38	10-153	10/26/04	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: NA
 Date Received: NA

Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Method Blank
 Lab Code: KWG0415263-3
 Extraction Method: EPA 3520C
 Analysis Method: 608M

Units: ug/L
 Basis: NA
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.0098	0.0021	1	10/06/04	10/25/04	KWG0415263	
beta-BHC	ND	U	0.0098	0.0024	1	10/06/04	10/25/04	KWG0415263	
gamma-BHC (Lindane)	ND	U	0.0098	0.0020	1	10/06/04	10/25/04	KWG0415263	
delta-BHC	ND	U	0.0098	0.0014	1	10/06/04	10/25/04	KWG0415263	
Heptachlor	ND	U	0.0098	0.0016	1	10/06/04	10/25/04	KWG0415263	
Dieldrin	ND	U	0.0098	0.0016	1	10/06/04	10/25/04	KWG0415263	
Heptachlor Epoxide	ND	U	0.0098	0.00088	1	10/06/04	10/25/04	KWG0415263	
Endosulfan I	ND	U	0.0098	0.00059	1	10/06/04	10/25/04	KWG0415263	
Dieldrin	ND	U	0.0098	0.00068	1	10/06/04	10/25/04	KWG0415263	
4'-DDE	ND	U	0.0098	0.0088	1	10/06/04	10/25/04	KWG0415263	
Endrin	ND	U	0.0098	0.0014	1	10/06/04	10/25/04	KWG0415263	
Endosulfan II	ND	U	0.0098	0.0019	1	10/06/04	10/25/04	KWG0415263	
4'-DDD	ND	U	0.0098	0.00080	1	10/06/04	10/25/04	KWG0415263	
Endrin Aldehyde	ND	U	0.0098	0.0012	1	10/06/04	10/25/04	KWG0415263	
Endosulfan Sulfate	ND	U	0.0098	0.0014	1	10/06/04	10/25/04	KWG0415263	
4'-DDT	ND	U	0.0098	0.0024	1	10/06/04	10/25/04	KWG0415263	
Toxaphene	ND	U	0.98	0.18	1	10/06/04	10/25/04	KWG0415263	
Chlordane	ND	U	0.98	0.055	1	10/06/04	10/25/04	KWG0415263	
Aroclor 1016	ND	U	0.98	0.10	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1221	ND	U	0.98	0.064	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1232	ND	U	0.98	0.043	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1242	ND	U	0.98	0.084	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1248	ND	U	0.98	0.017	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1254	ND	U	0.98	0.0084	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1260	ND	U	0.98	0.021	1	10/06/04	10/22/04	KWG0415263	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
tetrachloro-m-xylene	94	15-116	10/25/04	Acceptable
Decachlorobiphenyl	97	10-153	10/25/04	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650

Surrogate Recovery Summary
Organochlorine Pesticides and Polychlorinated Biphenyls

Extraction Method: EPA 3520C
Analysis Method: 608M

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>
SKS-PP04	K2407650-001	55 D	38 D
COS-PP04	K2407650-002	127 D *	26 D
Method Blank	KWG0415263-3	94	97
Lab Control Sample	KWG0415263-1	103	77
Duplicate Lab Control Sample	KWG0415263-2	90	109

Surrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene	15-116
Sur2 = Decachlorobiphenyl	10-153

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/06/2004
 Date Analyzed: 10/25/2004 -
 10/26/2004

Lab Control Spike/Duplicate Lab Control Spike Summary
 Organochlorine Pesticides and Polychlorinated Biphenyls

Extraction Method: EPA 3520C
 Analysis Method: 608M

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415263

Analyte Name	Lab Control Sample KWG0415263-1 Lab Control Spike			Duplicate Lab Control Sample KWG0415263-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
alpha-BHC	0.0965	0.0971	99	0.0915	0.0971	94	34-136	5	30
beta-BHC	0.0880	0.0971	91	0.0857	0.0971	88	35-144	3	30
gamma-BHC (Lindane)	0.100	0.0971	103	0.0952	0.0971	98	39-134	5	30
delta-BHC	0.104	0.0971	107	0.106	0.0971	110	41-141	2	30
Heptachlor	0.0753	0.0971	78	0.0713	0.0971	73	32-126	6	30
Aldrin	0.0929	0.0971	96	0.0874	0.0971	90	28-126	6	30
Heptachlor Epoxide	0.103	0.0971	107	0.105	0.0971	109	39-139	2	30
Endosulfan I	0.0849	0.0971	87	0.0860	0.0971	89	12-154	1	30
Dieldrin	0.0901	0.0971	93	0.0954	0.0971	98	44-136	6	30
4,4'-DDE	0.100	0.0971	103	0.0952	0.0971	98	43-136	5	30
Endrin	0.0991	0.0971	102	0.103	0.0971	106	44-138	3	30
Endosulfan II	0.0848	0.0971	87	0.0864	0.0971	89	19-157	2	30
4,4'-DDD	0.116	0.0971	119	0.111	0.0971	115	44-141	4	30
Endrin Aldehyde	0.0830	0.0971	85	0.0834	0.0971	86	39-128	0	30
Endosulfan Sulfate	0.0934	0.0971	96	0.0952	0.0971	98	46-137	2	30
4,4'-DDT	0.0972	0.0971	100	0.108	0.0971	111	52-138	11	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650
Date Extracted: 10/06/2004
Date Analyzed: 10/22/2004
Time Analyzed: 05:29

Method Blank Summary
Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Method Blank
Lab Code: KWG0415263-3

File ID: J:\GC09\DATA\102104_608.B\1021F028.D
Instrument ID: GC09.i

Extraction Method: EPA 3520C
Analysis Method: 608M

Level: Low
Extraction Lot: KWG0415263

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
SKS-PP04	K2407650-001	J:\GC09\DATA\102204_608.B\1022F036.D	10/23/04	09:21
OS-PP04	K2407650-002	J:\GC09\DATA\102204_608.B\1022F037.D	10/23/04	09:47

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650
Date Extracted: 10/06/2004
Date Analyzed: 10/25/2004
Time Analyzed: 23:09

Method Blank Summary
Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Method Blank
Lab Code: KWG0415263-3
Extraction Method: EPA 3520C
Analysis Method: 608M

File ID: J:\GC23\DATA\102504B-608\1025F029.D
Instrument ID: GC23
Level: Low
Extraction Lot: KWG0415263

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0415263-1	J:\GC23\DATA\102504B-608\1025F030.D	10/25/04	23:35
Duplicate Lab Control Sample	KWG0415263-2	J:\GC23\DATA\102504B-608\1025F031.D	10/26/04	00:02
KS-PP04	K2407650-001	J:\GC23\DATA\102504B-608\1025F036.D	10/26/04	02:14
COS-PP04	K2407650-002	J:\GC23\DATA\102504B-608\1025F037.D	10/26/04	02:41

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650

Lab Control Sample/Duplicate Lab Control Sample Summary
Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Lab Control Sample
Lab Code: KWG0415263-1
File ID: J:\GC23\DATA\102504B-608\1025F030.D
Instrument ID: GC23
Date Extracted: 10/06/2004
Date Analyzed: 10/25/2004
Time Analyzed: 23:35

Sample Name: Duplicate Lab Control Sample
Lab Code: KWG0415263-2
File ID: J:\GC23\DATA\102504B-608\1025F031.D
Instrument ID: GC23
Date Extracted: 10/06/2004
Date Analyzed: 10/26/2004
Time Analyzed: 00:02

Extraction Method: EPA 3520C
Analysis Method: 608M

Level: Low
Extraction Lot: KWG0415263

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0415263-3	J:\GC09\DATA\102104_608.B\1021F028.D	10/22/04	05:29
SKS-PP04	K2407650-001	J:\GC09\DATA\102204_608.B\1022F036.D	10/23/04	09:21
OS-PP04	K2407650-002	J:\GC09\DATA\102204_608.B\1022F037.D	10/23/04	09:47
Method Blank	KWG0415263-3	J:\GC23\DATA\102504B-608\1025F029.D	10/25/04	23:09
SKS-PP04	K2407650-001	J:\GC23\DATA\102504B-608\1025F036.D	10/26/04	02:14
OS-PP04	K2407650-002	J:\GC23\DATA\102504B-608\1025F037.D	10/26/04	02:41

**Volatile Organic Compounds
EPA Method 624**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: 09/23/2004
 Date Received: 09/30/2004

Volatile Organic Compounds

Sample Name: SKS-PP04
 Lab Code: K2407650-001

Units: ug/L

Basis: NA

Extraction Method: METHOD

Level: Low

Analysis Method: 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.31	1	10/07/04	10/07/04	KWG0416904	
Vinyl Chloride	ND	U	5.0	0.58	1	10/07/04	10/07/04	KWG0416904	
Bromomethane	ND	U	5.0	0.81	1	10/07/04	10/07/04	KWG0416904	
Chloroethane	ND	U	5.0	0.46	1	10/07/04	10/07/04	KWG0416904	
Trichlorofluoromethane	ND	U	5.0	0.49	1	10/07/04	10/07/04	KWG0416904	
1,1-Dichloroethene	ND	U	5.0	0.48	1	10/07/04	10/07/04	KWG0416904	
Methylene Chloride	ND	U	5.0	0.21	1	10/07/04	10/07/04	KWG0416904	
trans-1,2-Dichloroethene	ND	U	5.0	0.19	1	10/07/04	10/07/04	KWG0416904	
1,1-Dichloroethane	ND	U	5.0	0.34	1	10/07/04	10/07/04	KWG0416904	
Chloroform	ND	U	5.0	0.21	1	10/07/04	10/07/04	KWG0416904	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.45	1	10/07/04	10/07/04	KWG0416904	
Carbon Tetrachloride	ND	U	5.0	0.38	1	10/07/04	10/07/04	KWG0416904	
Benzene	ND	U	5.0	0.27	1	10/07/04	10/07/04	KWG0416904	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	10/07/04	10/07/04	KWG0416904	
Trichloroethene (TCE)	ND	U	5.0	0.46	1	10/07/04	10/07/04	KWG0416904	
1,2-Dichloropropane	ND	U	5.0	0.19	1	10/07/04	10/07/04	KWG0416904	
Bromodichloromethane	ND	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
2-Chloroethyl Vinyl Ether	ND	U	10	0.62	1	10/07/04	10/07/04	KWG0416904	
trans-1,3-Dichloropropene	ND	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
Toluene	0.30	J	5.0	0.25	1	10/07/04	10/07/04	KWG0416904	
cis-1,3-Dichloropropene	ND	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
1,1,2-Trichloroethane	ND	U	5.0	0.21	1	10/07/04	10/07/04	KWG0416904	
Tetrachloroethene (PCE)	ND	U	5.0	0.43	1	10/07/04	10/07/04	KWG0416904	
Dibromochloromethane	ND	U	5.0	0.15	1	10/07/04	10/07/04	KWG0416904	
Chlorobenzene	ND	U	5.0	0.18	1	10/07/04	10/07/04	KWG0416904	
Ethylbenzene	ND	U	5.0	0.33	1	10/07/04	10/07/04	KWG0416904	
Bromoform	ND	U	5.0	0.28	1	10/07/04	10/07/04	KWG0416904	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.25	1	10/07/04	10/07/04	KWG0416904	
1,3-Dichlorobenzene	ND	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
1,4-Dichlorobenzene	ND	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
1,2-Dichlorobenzene	ND	U	5.0	0.19	1	10/07/04	10/07/04	KWG0416904	
Acrolein	ND	U	50	4.3	1	10/07/04	10/07/04	KWG0416904	
Acrylonitrile	ND	U	10	0.45	1	10/07/04	10/07/04	KWG0416904	*

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650
Date Collected: 09/23/2004
Date Received: 09/30/2004

Volatile Organic Compounds

Sample Name: SKS-PP04
Lab Code: K2407650-001

Units: ug/L
Basis: NA

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	112	80-124	10/07/04	Acceptable
4-Bromofluorobenzene	100	79-117	10/07/04	Acceptable
Dibromofluoromethane	107	64-132	10/07/04	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: NA
 Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
 Lab Code: KWG0415389-5
 Extraction Method: METHOD
 Analysis Method: 624

Units: ug/L
 Basis: NA
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.31	1	10/01/04	10/01/04	KWG0415389	
Vinyl Chloride	ND	U	5.0	0.58	1	10/01/04	10/01/04	KWG0415389	
Bromomethane	ND	U	5.0	0.81	1	10/01/04	10/01/04	KWG0415389	
Chloroethane	ND	U	5.0	0.46	1	10/01/04	10/01/04	KWG0415389	
Trichlorofluoromethane	ND	U	5.0	0.49	1	10/01/04	10/01/04	KWG0415389	
1,1-Dichloroethene	ND	U	5.0	0.48	1	10/01/04	10/01/04	KWG0415389	
Methylene Chloride	ND	U	5.0	0.21	1	10/01/04	10/01/04	KWG0415389	
trans-1,2-Dichloroethene	ND	U	5.0	0.19	1	10/01/04	10/01/04	KWG0415389	
1,1-Dichloroethane	ND	U	5.0	0.34	1	10/01/04	10/01/04	KWG0415389	
Chloroform	ND	U	5.0	0.21	1	10/01/04	10/01/04	KWG0415389	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.45	1	10/01/04	10/01/04	KWG0415389	
Carbon Tetrachloride	ND	U	5.0	0.38	1	10/01/04	10/01/04	KWG0415389	
Benzene	ND	U	5.0	0.27	1	10/01/04	10/01/04	KWG0415389	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	10/01/04	10/01/04	KWG0415389	
Trichloroethene (TCE)	ND	U	5.0	0.46	1	10/01/04	10/01/04	KWG0415389	
1,2-Dichloropropane	ND	U	5.0	0.19	1	10/01/04	10/01/04	KWG0415389	
Bromodichloromethane	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
2-Chloroethyl Vinyl Ether	ND	U	10	0.62	1	10/01/04	10/01/04	KWG0415389	
trans-1,3-Dichloropropene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
Toluene	ND	U	5.0	0.25	1	10/01/04	10/01/04	KWG0415389	
cis-1,3-Dichloropropene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
1,1,2-Trichloroethane	ND	U	5.0	0.21	1	10/01/04	10/01/04	KWG0415389	
Tetrachloroethene (PCE)	ND	U	5.0	0.43	1	10/01/04	10/01/04	KWG0415389	
Dibromochloromethane	ND	U	5.0	0.15	1	10/01/04	10/01/04	KWG0415389	
Chlorobenzene	ND	U	5.0	0.18	1	10/01/04	10/01/04	KWG0415389	
Ethylbenzene	ND	U	5.0	0.33	1	10/01/04	10/01/04	KWG0415389	
Bromoform	ND	U	5.0	0.28	1	10/01/04	10/01/04	KWG0415389	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.25	1	10/01/04	10/01/04	KWG0415389	
1,3-Dichlorobenzene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
1,4-Dichlorobenzene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
1,2-Dichlorobenzene	ND	U	5.0	0.19	1	10/01/04	10/01/04	KWG0415389	
Acrolein	ND	U	50	4.3	1	10/01/04	10/01/04	KWG0415389	
Acrylonitrile	ND	U	10	0.45	1	10/01/04	10/01/04	KWG0415389	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG0415389-5

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Toluene-d8	85	80-124	10/01/04	Acceptable
4-Bromofluorobenzene	79	79-117	10/01/04	Acceptable
Dibromofluoromethane	82	64-132	10/01/04	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: METHOD
Analysis Method: 624

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
SKS-PP04	K2407650-001	112	100	107
COS-PP04	K2407650-002	87	78 *	82
Method Blank	KWG0415389-5	85	79	82
Method Blank	KWG0416904-3	103	94	100
Batch QC	K2407594-019	89	76 *	81
Batch QCMS	KWG0415389-1	85	79	82
Batch QCDMS	KWG0415389-2	84	82	84
Lab Control Sample	KWG0415389-3	86	81	83
Lab Control Sample	KWG0416904-1	107	107	112
Duplicate Lab Control Sample	KWG0416904-2	92	91	95

Surrogate Recovery Control Limits (%)

Sur1 = Toluene-d8	80-124
Sur2 = 4-Bromofluorobenzene	79-117
Sur3 = Dibromofluoromethane	64-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/01/2004
 Date Analyzed: 10/01/2004

Matrix Spike/Duplicate Matrix Spike Summary
 Volatile Organic Compounds

Sample Name: Batch QC
 Lab Code: K2407594-019
 Extraction Method: METHOD
 Analysis Method: 624

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415389

Analyte Name	Sample Result	Batch QCMS KWG0415389-1 Matrix Spike			Batch QCDMS KWG0415389-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	30.9	20.0	154 *	31.8	20.0	159 *	60-152	3	30
Benzene	ND	27.8	20.0	139 *	28.9	20.0	145 *	76-132	4	30
Trichloroethene (TCE)	ND	29.1	20.0	145	29.6	20.0	148	37-183	2	30
Toluene	ND	26.9	20.0	134	28.6	20.0	143 *	62-141	6	30
Chlorobenzene	ND	25.0	20.0	125	26.4	20.0	132 *	70-128	5	30
1,2-Dichlorobenzene	ND	25.7	20.0	129	27.0	20.0	135 *	68-129	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/01/2004
 Date Analyzed: 10/01/2004

Lab Control Spike Summary
 Volatile Organic Compounds

Extraction Method: METHOD
 Analysis Method: 624

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415389

Lab Control Sample
 KWG0415389-3
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Chloromethane	18.6	20.0	93	49-136
Vinyl Chloride	19.3	20.0	96	61-145
Bromomethane	20.9	20.0	105	35-154
Chloroethane	20.5	20.0	103	60-131
Trichlorofluoromethane	19.0	20.0	95	57-138
1,1-Dichloroethene	21.3	20.0	106	61-141
Methylene Chloride	19.9	20.0	100	65-126
trans-1,2-Dichloroethene	20.0	20.0	100	65-130
1,1-Dichloroethane	19.1	20.0	95	65-127
Chloroform	18.4	20.0	92	67-131
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	61-143
Carbon Tetrachloride	20.3	20.0	101	70-140
Benzene	19.5	20.0	97	75-127
1,2-Dichloroethane (EDC)	19.8	20.0	99	64-132
Trichloroethene (TCE)	20.1	20.0	100	71-157
1,2-Dichloropropane	18.7	20.0	94	72-123
Bromodichloromethane	18.7	20.0	94	70-125
2-Chloroethyl Vinyl Ether	26.9	20.0	134	10-185
trans-1,3-Dichloropropene	17.2	20.0	86	66-125
Toluene	19.5	20.0	97	71-132
cis-1,3-Dichloropropene	18.4	20.0	92	72-134
1,1,2-Trichloroethane	19.8	20.0	99	72-126
Tetrachloroethene (PCE)	20.2	20.0	101	69-131
Dibromochloromethane	18.9	20.0	94	70-126
Chlorobenzene	18.1	20.0	91	75-122
Ethylbenzene	19.6	20.0	98	75-133
Bromoform	20.4	20.0	102	72-133
1,1,2,2-Tetrachloroethane	19.3	20.0	96	59-133
1,3-Dichlorobenzene	20.0	20.0	100	73-129
1,4-Dichlorobenzene	19.6	20.0	98	74-125
1,2-Dichlorobenzene	19.8	20.0	99	71-129
Acrolein	70.6	100	71	10-161
Acrylonitrile	20.8	20.0	104	67-115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/07/2004
 Date Analyzed: 10/07/2004

Lab Control Spike/Duplicate Lab Control Spike Summary
 Volatile Organic Compounds

Extraction Method: METHOD
 Analysis Method: 624

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0416904

Analyte Name	Lab Control Sample KWG0416904-1 Lab Control Spike			Duplicate Lab Control Sample KWG0416904-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Chloromethane	26.8	20.0	134	23.0	20.0	115	49-136	15	30
Vinyl Chloride	25.6	20.0	128	20.9	20.0	104	61-145	20	30
Bromomethane	26.7	20.0	133	23.8	20.0	119	35-154	11	30
Chloroethane	25.8	20.0	129	21.0	20.0	105	60-131	21	30
Trichlorofluoromethane	21.0	20.0	105	18.3	20.0	91	57-138	14	30
1,1-Dichloroethene	24.6	20.0	123	20.4	20.0	102	61-141	19	30
Methylene Chloride	21.2	20.0	106	18.2	20.0	91	65-126	15	30
trans-1,2-Dichloroethene	23.6	20.0	118	19.9	20.0	100	65-130	17	30
1,1-Dichloroethane	22.7	20.0	114	19.7	20.0	98	65-127	14	30
Chloroform	22.8	20.0	114	19.6	20.0	98	67-131	15	30
1,1,1-Trichloroethane (TCA)	22.7	20.0	113	19.2	20.0	96	61-143	17	30
Carbon Tetrachloride	23.2	20.0	116	19.8	20.0	99	70-140	16	30
Benzene	24.0	20.0	120	20.2	20.0	101	75-127	17	30
1,2-Dichloroethane (EDC)	22.6	20.0	113	19.6	20.0	98	64-132	14	30
Trichloroethene (TCE)	23.5	20.0	118	20.9	20.0	105	71-157	12	30
1,2-Dichloropropane	22.9	20.0	114	19.6	20.0	98	72-123	16	30
Bromodichloromethane	23.3	20.0	117	20.1	20.0	101	70-125	15	30
2-Chloroethyl Vinyl Ether	15.8	20.0	79	11.5	20.0	58	10-185	32 *	30
trans-1,3-Dichloropropene	21.2	20.0	106	18.7	20.0	93	66-125	12	30
Toluene	23.4	20.0	117	20.1	20.0	100	71-132	15	30
cis-1,3-Dichloropropene	22.0	20.0	110	19.4	20.0	97	72-134	12	30
1,1,2-Trichloroethane	22.1	20.0	110	18.3	20.0	91	72-126	19	30
Tetrachloroethene (PCE)	19.5	20.0	98	16.6	20.0	83	69-131	16	30
Dibromochloromethane	22.9	20.0	114	19.6	20.0	98	70-126	15	30
Chlorobenzene	22.8	20.0	114	19.2	20.0	96	75-122	17	30
Ethylbenzene	23.7	20.0	118	19.6	20.0	98	75-133	19	30
Bromoform	23.8	20.0	119	19.8	20.0	99	72-133	18	30
1,1,2,2-Tetrachloroethane	23.6	20.0	118	18.9	20.0	95	59-133	22	30
1,3-Dichlorobenzene	23.8	20.0	119	19.4	20.0	97	73-129	20	30
1,4-Dichlorobenzene	24.4	20.0	122	19.6	20.0	98	74-125	22	30
1,2-Dichlorobenzene	23.6	20.0	118	19.1	20.0	95	71-129	21	30
Acrolein	87.8	100	88	76.2	100	76	10-161	14	30
Acrylonitrile	23.4	20.0	117 *	19.1	20.0	96	67-115	20	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
Sample Matrix: Water

Service Request: K2407650
Date Extracted: 10/01/2004
Date Analyzed: 10/01/2004

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K2407594-019
Extraction Method: METHOD
Analysis Method: 624

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG0415389

Analyte Name	Sample Result	Batch QCMS KWG0415389-1 Matrix Spike			Batch QCDMS KWG0415389-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	30.9	20.0	154 *	31.8	20.0	159 *	60-152	3	30
Benzene	ND	27.8	20.0	139 *	28.9	20.0	145 *	76-132	4	30
Trichloroethene (TCE)	ND	29.1	20.0	145	29.6	20.0	148	37-183	2	30
Toluene	ND	26.9	20.0	134	28.6	20.0	143 *	62-141	6	30
Chlorobenzene	ND	25.0	20.0	125	26.4	20.0	132 *	70-128	5	30
1,2-Dichlorobenzene	ND	25.7	20.0	129	27.0	20.0	135 *	68-129	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/01/2004
 Date Analyzed: 10/01/2004

Lab Control Spike Summary
 Volatile Organic Compounds

Extraction Method: METHOD
 Analysis Method: 624

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415389

Lab Control Sample
 KWG0415389-3
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Chloromethane	18.6	20.0	93	49-136
Vinyl Chloride	19.3	20.0	96	61-145
Bromomethane	20.9	20.0	105	35-154
Chloroethane	20.5	20.0	103	60-131
Trichlorofluoromethane	19.0	20.0	95	57-138
1,1-Dichloroethene	21.3	20.0	106	61-141
Methylene Chloride	19.9	20.0	100	65-126
trans-1,2-Dichloroethene	20.0	20.0	100	65-130
1,1-Dichloroethane	19.1	20.0	95	65-127
Chloroform	18.4	20.0	92	67-131
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	61-143
Carbon Tetrachloride	20.3	20.0	101	70-140
Benzene	19.5	20.0	97	75-127
1,2-Dichloroethane (EDC)	19.8	20.0	99	64-132
Trichloroethene (TCE)	20.1	20.0	100	71-157
1,2-Dichloropropane	18.7	20.0	94	72-123
Bromodichloromethane	18.7	20.0	94	70-125
2-Chloroethyl Vinyl Ether	26.9	20.0	134	10-185
trans-1,3-Dichloropropene	17.2	20.0	86	66-125
Toluene	19.5	20.0	97	71-132
cis-1,3-Dichloropropene	18.4	20.0	92	72-134
1,1,2-Trichloroethane	19.8	20.0	99	72-126
Tetrachloroethene (PCE)	20.2	20.0	101	69-131
Dibromochloromethane	18.9	20.0	94	70-126
Chlorobenzene	18.1	20.0	91	75-122
Ethylbenzene	19.6	20.0	98	75-133
Bromoform	20.4	20.0	102	72-133
1,1,2,2-Tetrachloroethane	19.3	20.0	96	59-133
1,3-Dichlorobenzene	20.0	20.0	100	73-129
1,4-Dichlorobenzene	19.6	20.0	98	74-125
1,2-Dichlorobenzene	19.8	20.0	99	71-129
Acrolein	70.6	100	71	10-161
Acrylonitrile	20.8	20.0	104	67-115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/07/2004
 Date Analyzed: 10/07/2004

Lab Control Spike/Duplicate Lab Control Spike Summary
 Volatile Organic Compounds

Extraction Method: METHOD
 Analysis Method: 624

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0416904

Analyte Name	Lab Control Sample KWG0416904-1 Lab Control Spike			Duplicate Lab Control Sample KWG0416904-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Chloromethane	26.8	20.0	134	23.0	20.0	115	49-136	15	30
Vinyl Chloride	25.6	20.0	128	20.9	20.0	104	61-145	20	30
Bromomethane	26.7	20.0	133	23.8	20.0	119	35-154	11	30
Chloroethane	25.8	20.0	129	21.0	20.0	105	60-131	21	30
Trichlorofluoromethane	21.0	20.0	105	18.3	20.0	91	57-138	14	30
1,1-Dichloroethene	24.6	20.0	123	20.4	20.0	102	61-141	19	30
Methylene Chloride	21.2	20.0	106	18.2	20.0	91	65-126	15	30
trans-1,2-Dichloroethene	23.6	20.0	118	19.9	20.0	100	65-130	17	30
1,1-Dichloroethane	22.7	20.0	114	19.7	20.0	98	65-127	14	30
Chloroform	22.8	20.0	114	19.6	20.0	98	67-131	15	30
1,1,1-Trichloroethane (TCA)	22.7	20.0	113	19.2	20.0	96	61-143	17	30
Carbon Tetrachloride	23.2	20.0	116	19.8	20.0	99	70-140	16	30
Benzene	24.0	20.0	120	20.2	20.0	101	75-127	17	30
1,2-Dichloroethane (EDC)	22.6	20.0	113	19.6	20.0	98	64-132	14	30
Trichloroethene (TCE)	23.5	20.0	118	20.9	20.0	105	71-157	12	30
1,2-Dichloropropane	22.9	20.0	114	19.6	20.0	98	72-123	16	30
Bromodichloromethane	23.3	20.0	117	20.1	20.0	101	70-125	15	30
2-Chloroethyl Vinyl Ether	15.8	20.0	79	11.5	20.0	58	10-185	32 *	30
trans-1,3-Dichloropropene	21.2	20.0	106	18.7	20.0	93	66-125	12	30
Toluene	23.4	20.0	117	20.1	20.0	100	71-132	15	30
cis-1,3-Dichloropropene	22.0	20.0	110	19.4	20.0	97	72-134	12	30
1,1,2-Trichloroethane	22.1	20.0	110	18.3	20.0	91	72-126	19	30
Tetrachloroethene (PCE)	19.5	20.0	98	16.6	20.0	83	69-131	16	30
Dibromochloromethane	22.9	20.0	114	19.6	20.0	98	70-126	15	30
Chlorobenzene	22.8	20.0	114	19.2	20.0	96	75-122	17	30
Ethylbenzene	23.7	20.0	118	19.6	20.0	98	75-133	19	30
Bromoform	23.8	20.0	119	19.8	20.0	99	72-133	18	30
1,1,2,2-Tetrachloroethane	23.6	20.0	118	18.9	20.0	95	59-133	22	30
1,3-Dichlorobenzene	23.8	20.0	119	19.4	20.0	97	73-129	20	30
1,4-Dichlorobenzene	24.4	20.0	122	19.6	20.0	98	74-125	22	30
1,2-Dichlorobenzene	23.6	20.0	118	19.1	20.0	95	71-129	21	30
Acrolein	87.8	100	88	76.2	100	76	10-161	14	30
Acrylonitrile	23.4	20.0	117 *	19.1	20.0	96	67-115	20	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Semi-Volatile Organic Compounds by GC/MS
EPA Method 625

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: 09/23/2004
 Date Received: 09/30/2004

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SKS-PP04
 Lab Code: K2407650-001
 Extraction Method: EPA 3520C
 Analysis Method: 625

Units: ug/L
 Basis: NA
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	50	0.96	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-chloroethyl) Ether	ND	U	20	0.67	1	10/06/04	10/13/04	KWG0415309	*
Phenol	220		20	0.65	1	10/06/04	10/13/04	KWG0415309	*
2-Chlorophenol	ND	U	20	0.63	1	10/06/04	10/13/04	KWG0415309	*
1,3-Dichlorobenzene	ND	U	20	0.71	1	10/06/04	10/13/04	KWG0415309	*
1,4-Dichlorobenzene	ND	U	20	0.64	1	10/06/04	10/13/04	KWG0415309	*
1,2-Dichlorobenzene	ND	U	20	0.87	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-chloroisopropyl) Ether	ND	U	20	0.63	1	10/06/04	10/13/04	KWG0415309	*
Hexachloroethane	ND	U	20	0.58	1	10/06/04	10/13/04	KWG0415309	*
N-Nitrosodi-n-propylamine	ND	U	20	1.0	1	10/06/04	10/13/04	KWG0415309	*
Nitrobenzene	ND	U	20	1.2	1	10/06/04	10/13/04	KWG0415309	*
Isophorone	ND	U	20	0.50	1	10/06/04	10/13/04	KWG0415309	*
2-Nitrophenol	ND	U	20	0.75	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dimethylphenol	ND	U	20	0.53	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-chloroethoxy)methane	ND	U	20	0.56	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dichlorophenol	ND	U	20	0.60	1	10/06/04	10/13/04	KWG0415309	*
1,2,4-Trichlorobenzene	ND	U	20	0.71	1	10/06/04	10/13/04	KWG0415309	*
Naphthalene	ND	U	20	0.73	1	10/06/04	10/13/04	KWG0415309	*
Hexachlorobutadiene	ND	U	20	0.59	1	10/06/04	10/13/04	KWG0415309	*
4-Chloro-3-methylphenol	ND	U	20	0.98	1	10/06/04	10/13/04	KWG0415309	*
Hexachlorocyclopentadiene	ND	U	20	2.5	1	10/06/04	10/13/04	KWG0415309	*
2,4,6-Trichlorophenol	ND	U	20	0.41	1	10/06/04	10/13/04	KWG0415309	*
2-Chloronaphthalene	ND	U	20	0.58	1	10/06/04	10/13/04	KWG0415309	*
Acenaphthylene	ND	U	20	0.48	1	10/06/04	10/13/04	KWG0415309	*
Dimethyl Phthalate	ND	U	20	0.51	1	10/06/04	10/13/04	KWG0415309	*
2,6-Dinitrotoluene	ND	U	20	0.70	1	10/06/04	10/13/04	KWG0415309	*
Acenaphthene	ND	U	20	0.57	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dinitrophenol	ND	U	50	4.5	1	10/06/04	10/13/04	KWG0415309	*
4-Nitrophenol	ND	U	50	3.9	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dinitrotoluene	ND	U	20	0.55	1	10/06/04	10/13/04	KWG0415309	*
Fluorene	ND	U	20	0.65	1	10/06/04	10/13/04	KWG0415309	*
4-Chlorophenyl Phenyl Ether	ND	U	20	0.56	1	10/06/04	10/13/04	KWG0415309	*
Diethyl Phthalate	ND	U	20	0.58	1	10/06/04	10/13/04	KWG0415309	*
2-Methyl-4,6-dinitrophenol	ND	U	50	4.3	1	10/06/04	10/13/04	KWG0415309	*

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: 09/23/2004
 Date Received: 09/30/2004

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SKS-PP04
 Lab Code: K2407650-001

Units: ug/L
 Basis: NA

Extraction Method: EPA 3520C
 Analysis Method: 625

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine	ND	U	20	1.1	1	10/06/04	10/13/04	KWG0415309	*
1,2-Diphenylhydrazine†	ND	U	20	1.1	1	10/06/04	10/13/04	KWG0415309	*
4-Bromophenyl Phenyl Ether	ND	U	20	0.55	1	10/06/04	10/13/04	KWG0415309	*
Hexachlorobenzene	ND	U	20	1.3	1	10/06/04	10/13/04	KWG0415309	*
Pentachlorophenol	ND	U	50	4.9	1	10/06/04	10/13/04	KWG0415309	*
Phenanthrene	ND	U	20	0.97	1	10/06/04	10/13/04	KWG0415309	*
Anthracene	ND	U	20	1.3	1	10/06/04	10/13/04	KWG0415309	*
Di-n-butyl Phthalate	ND	U	20	0.73	1	10/06/04	10/13/04	KWG0415309	*
Fluoranthene	ND	U	20	1.4	1	10/06/04	10/13/04	KWG0415309	*
Benzidine	ND	U	100	18	1	10/06/04	10/13/04	KWG0415309	*
Pyrene	ND	U	20	1.5	1	10/06/04	10/13/04	KWG0415309	*
Butyl Benzyl Phthalate	ND	U	20	0.94	1	10/06/04	10/13/04	KWG0415309	*
3,3'-Dichlorobenzidine	ND	U	50	0.54	1	10/06/04	10/13/04	KWG0415309	*
Benz(a)anthracene	ND	U	20	1.2	1	10/06/04	10/13/04	KWG0415309	*
Chrysene	ND	U	20	1.6	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-ethylhexyl) Phthalate	ND	U	20	3.8	1	10/06/04	10/13/04	KWG0415309	*
Di-n-octyl Phthalate	ND	U	20	1.3	1	10/06/04	10/13/04	KWG0415309	*
Benzo(b)fluoranthene	ND	U	20	1.2	1	10/06/04	10/13/04	KWG0415309	*
Benzo(k)fluoranthene	ND	U	20	1.7	1	10/06/04	10/13/04	KWG0415309	*
Benzo(a)pyrene	ND	U	20	1.4	1	10/06/04	10/13/04	KWG0415309	*
Indeno(1,2,3-cd)pyrene	ND	U	20	1.4	1	10/06/04	10/13/04	KWG0415309	*
Dibenz(a,h)anthracene	ND	U	20	1.6	1	10/06/04	10/13/04	KWG0415309	*
Benzo(g,h,i)perylene	ND	U	20	1.7	1	10/06/04	10/13/04	KWG0415309	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	74	27-107	10/13/04	Acceptable
Phenol-d6	81	22-126	10/13/04	Acceptable
Nitrobenzene-d5	87	37-119	10/13/04	Acceptable
2-Fluorobiphenyl	84	27-119	10/13/04	Acceptable
2,4,6-Tribromophenol	84	42-127	10/13/04	Acceptable
Terphenyl-d14	51	10-174	10/13/04	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: NA
 Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
 Lab Code: KWG0415309-4
 Extraction Method: EPA 3520C
 Analysis Method: 625

Units: ug/L
 Basis: NA
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	0.48	1	10/06/04	10/08/04	KWG0415309	
Bis(2-chloroethyl) Ether	ND	U	9.6	0.34	1	10/06/04	10/08/04	KWG0415309	
Phenol	ND	U	9.6	0.33	1	10/06/04	10/08/04	KWG0415309	
2-Chlorophenol	ND	U	9.6	0.32	1	10/06/04	10/08/04	KWG0415309	
1,3-Dichlorobenzene	ND	U	9.6	0.36	1	10/06/04	10/08/04	KWG0415309	
1,4-Dichlorobenzene	ND	U	9.6	0.32	1	10/06/04	10/08/04	KWG0415309	
1,2-Dichlorobenzene	ND	U	9.6	0.44	1	10/06/04	10/08/04	KWG0415309	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.32	1	10/06/04	10/08/04	KWG0415309	
Hexachloroethane	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.50	1	10/06/04	10/08/04	KWG0415309	
Nitrobenzene	ND	U	9.6	0.57	1	10/06/04	10/08/04	KWG0415309	
sophorone	ND	U	9.6	0.25	1	10/06/04	10/08/04	KWG0415309	
2-Nitrophenol	ND	U	9.6	0.38	1	10/06/04	10/08/04	KWG0415309	
2,4-Dimethylphenol	ND	U	9.6	0.27	1	10/06/04	10/08/04	KWG0415309	
Bis(2-chloroethoxy)methane	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
2,4-Dichlorophenol	ND	U	9.6	0.30	1	10/06/04	10/08/04	KWG0415309	
1,2,4-Trichlorobenzene	ND	U	9.6	0.36	1	10/06/04	10/08/04	KWG0415309	
Naphthalene	ND	U	9.6	0.37	1	10/06/04	10/08/04	KWG0415309	
Hexachlorobutadiene	ND	U	9.6	0.30	1	10/06/04	10/08/04	KWG0415309	
4-Chloro-3-methylphenol	ND	U	9.6	0.49	1	10/06/04	10/08/04	KWG0415309	
Hexachlorocyclopentadiene	ND	U	9.6	1.3	1	10/06/04	10/08/04	KWG0415309	
2,4,6-Trichlorophenol	ND	U	9.6	0.21	1	10/06/04	10/08/04	KWG0415309	
2-Chloronaphthalene	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
Acenaphthylene	ND	U	9.6	0.24	1	10/06/04	10/08/04	KWG0415309	
Dimethyl Phthalate	ND	U	9.6	0.26	1	10/06/04	10/08/04	KWG0415309	
2,6-Dinitrotoluene	ND	U	9.6	0.35	1	10/06/04	10/08/04	KWG0415309	
Acenaphthene	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
2,4-Dinitrophenol	ND	U	24	2.3	1	10/06/04	10/08/04	KWG0415309	
4-Nitrophenol	ND	U	24	2.0	1	10/06/04	10/08/04	KWG0415309	
2,4-Dinitrotoluene	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
Fluorene	ND	U	9.6	0.33	1	10/06/04	10/08/04	KWG0415309	
4-Chlorophenyl Phenyl Ether	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
Diethyl Phthalate	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
1-Methyl-4,6-dinitrophenol	ND	U	24	2.2	1	10/06/04	10/08/04	KWG0415309	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Collected: NA
 Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
 Lab Code: KWG0415309-4

Units: ug/L
 Basis: NA

Extraction Method: EPA 3520C
 Analysis Method: 625

Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine	ND U	9.6	0.53	1	10/06/04	10/08/04	KWG0415309	
1,2-Diphenylhydrazine†	ND U	9.6	0.51	1	10/06/04	10/08/04	KWG0415309	
4-Bromophenyl Phenyl Ether	ND U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
Hexachlorobenzene	ND U	9.6	0.63	1	10/06/04	10/08/04	KWG0415309	
Pentachlorophenol	ND U	24	2.5	1	10/06/04	10/08/04	KWG0415309	
Phenanthrene	ND U	9.6	0.49	1	10/06/04	10/08/04	KWG0415309	
Anthracene	ND U	9.6	0.62	1	10/06/04	10/08/04	KWG0415309	
Di-n-butyl Phthalate	ND U	9.6	0.37	1	10/06/04	10/08/04	KWG0415309	
Fluoranthene	ND U	9.6	0.66	1	10/06/04	10/08/04	KWG0415309	
Benzidine	ND U	48	8.8	1	10/06/04	10/08/04	KWG0415309	
Pyrene	ND U	9.6	0.74	1	10/06/04	10/08/04	KWG0415309	
Butyl Benzyl Phthalate	ND U	9.6	0.47	1	10/06/04	10/08/04	KWG0415309	
3,3'-Dichlorobenzidine	ND U	24	0.27	1	10/06/04	10/08/04	KWG0415309	
Benz(a)anthracene	ND U	9.6	0.60	1	10/06/04	10/08/04	KWG0415309	
Chrysene	ND U	9.6	0.79	1	10/06/04	10/08/04	KWG0415309	
Bis(2-ethylhexyl) Phthalate	ND U	9.6	1.9	1	10/06/04	10/08/04	KWG0415309	
Di-n-octyl Phthalate	ND U	9.6	0.63	1	10/06/04	10/08/04	KWG0415309	
Benzo(b)fluoranthene	ND U	9.6	0.59	1	10/06/04	10/08/04	KWG0415309	
Benzo(k)fluoranthene	ND U	9.6	0.83	1	10/06/04	10/08/04	KWG0415309	
Benzo(a)pyrene	ND U	9.6	0.66	1	10/06/04	10/08/04	KWG0415309	
Indeno(1,2,3-cd)pyrene	ND U	9.6	0.69	1	10/06/04	10/08/04	KWG0415309	
Dibenz(a,h)anthracene	ND U	9.6	0.76	1	10/06/04	10/08/04	KWG0415309	
Benzo(g,h,i)perylene	ND U	9.6	0.82	1	10/06/04	10/08/04	KWG0415309	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	71	27-107	10/08/04	Acceptable
Phenol-d6	72	22-126	10/08/04	Acceptable
Nitrobenzene-d5	73	37-119	10/08/04	Acceptable
2-Fluorobiphenyl	79	27-119	10/08/04	Acceptable
2,4,6-Tribromophenol	86	42-127	10/08/04	Acceptable
Terphenyl-d14	98	10-174	10/08/04	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/06/2004
 Date Analyzed: 10/08/2004

Matrix Spike/Duplicate Matrix Spike Summary
 Semi-Volatile Organic Compounds by GC/MS

Sample Name: Batch QC
 Lab Code: K2407744-001
 Extraction Method: EPA 3520C
 Analysis Method: 625

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415309

Analyte Name	Sample Result	Batch QCMS KWG0415309-1 Matrix Spike			Batch QCDMS KWG0415309-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Phenol	ND	84.1	118	72	87.1	118	74	17-126	3	30
2-Chlorophenol	ND	82.2	118	70	91.5	118	78	31-117	11	30
1,4-Dichlorobenzene	ND	68.9	118	59	77.2	118	66	34-97	11	30
N-Nitrosodi-n-propylamine	ND	91.1	118	77	97.2	118	83	32-139	7	30
1,2,4-Trichlorobenzene	ND	75.4	118	64	87.4	118	74	10-167	15	30
4-Chloro-3-methylphenol	ND	97.1	118	83	106	118	90	10-158	9	30
Acenaphthene	ND	93.6	118	80	102	118	86	34-118	8	30
4-Nitrophenol	ND	101	118	86	107	118	91	28-134	6	30
2,4-Dinitrotoluene	ND	105	118	89	109	118	93	34-143	4	30
Pentachlorophenol	ND	102	118	86	106	118	90	37-132	4	30
Pyrene	ND	97.3	118	83	96.7	118	82	10-136	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/06/2004
 Date Analyzed: 10/08/2004

Lab Control Spike Summary
 Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
 Analysis Method: 625

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415309

Analyte Name	Lab Control Sample KWG0415309-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
N-Nitrosodimethylamine	75.8	95.2	80	51-112
Bis(2-chloroethyl) Ether	77.5	95.2	81	56-101
Phenol	79.3	95.2	83	48-101
2-Chlorophenol	83.7	95.2	88	60-100
1,3-Dichlorobenzene	78.5	95.2	82	56-94
1,4-Dichlorobenzene	77.4	95.2	81	55-91
1,2-Dichlorobenzene	81.0	95.2	85	57-96
Bis(2-chloroisopropyl) Ether	65.4	95.2	69	50-109
Hexachloroethane	77.8	95.2	82	52-98
N-Nitrosodi-n-propylamine	87.8	95.2	92	62-113
Nitrobenzene	77.1	95.2	81	62-103
Isophorone	84.2	95.2	88	74-111
2-Nitrophenol	87.6	95.2	92	66-103
2,4-Dimethylphenol	82.6	95.2	87	51-98
Bis(2-chloroethoxy)methane	76.2	95.2	80	65-97
2,4-Dichlorophenol	87.8	95.2	92	65-100
1,2,4-Trichlorobenzene	78.0	95.2	82	58-97
Naphthalene	80.2	95.2	84	64-97
Hexachlorobutadiene	76.4	95.2	80	53-98
4-Chloro-3-methylphenol	92.9	95.2	98	50-120
Hexachlorocyclopentadiene	18.5	95.2	19	10-64
2,4,6-Trichlorophenol	91.1	95.2	96	67-106
2-Chloronaphthalene	83.9	95.2	88	61-104
Acenaphthylene	91.4	95.2	96	73-108
Dimethyl Phthalate	92.8	95.2	97	54-123
2,6-Dinitrotoluene	96.5	95.2	101	78-112
Acenaphthene	86.5	95.2	91	70-104
2,4-Dinitrophenol	89.0	95.2	94	37-129
4-Nitrophenol	88.4	95.2	93	49-123
2,4-Dinitrotoluene	98.7	95.2	104	77-121
Fluorene	89.1	95.2	94	66-115
4-Chlorophenyl Phenyl Ether	89.0	95.2	93	68-108
Diethyl Phthalate	93.1	95.2	98	24-152
4-Methyl-4,6-dinitrophenol	92.4	95.2	97	49-120
N-Nitrosodiphenylamine	97.4	95.2	102	71-114
1,2-Diphenylhydrazine	95.5	95.2	100	70-111

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
 Project: Joint Cannery Outfall -Streams/147323.JC.04.TW
 Sample Matrix: Water

Service Request: K2407650
 Date Extracted: 10/06/2004
 Date Analyzed: 10/08/2004

Lab Control Spike Summary
 Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
 Analysis Method: 625

Units: ug/L
 Basis: NA
 Level: Low
 Extraction Lot: KWG0415309

Analyte Name	Lab Control Sample KWG0415309-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
p-Bromophenyl Phenyl Ether	99.3	95.2	104	69-110
Hexachlorobenzene	98.9	95.2	104	68-116
Pentachlorophenol	92.6	95.2	97	50-122
Phenanthrene	89.6	95.2	94	70-110
Anthracene	93.7	95.2	98	71-110
Di-n-butyl Phthalate	93.3	95.2	98	62-119
Fluoranthene	92.2	95.2	97	62-116
Benzidine	130	190	68	10-229
Pyrene	89.1	95.2	94	65-113
Butyl Benzyl Phthalate	90.2	95.2	95	61-125
2,3'-Dichlorobenzidine	94.8	95.2	100	49-109
Benz(a)anthracene	93.2	95.2	98	75-108
Chrysene	96.9	95.2	102	73-113
Bis(2-ethylhexyl) Phthalate	94.5	95.2	99	67-119
Di-n-octyl Phthalate	92.3	95.2	97	58-131
Benzo(b)fluoranthene	93.1	95.2	98	74-112
Benzo(k)fluoranthene	91.2	95.2	96	73-124
Benzo(a)pyrene	94.5	95.2	99	73-108
Indeno(1,2,3-cd)pyrene	93.0	95.2	98	55-122
Dibenz(a,h)anthracene	99.2	95.2	104	69-117
Benzo(g,h,i)perylene	97.4	95.2	102	60-118

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.